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ABSTRACT

This volume combines an executive summary, a report, and appendixes, all of which comprise the findings of the Profile of Child Care Settings Study. The study collected information on the supply of formal early education and care programs by means of telephone interviews with a national sample of center directors and home-based providers of early education and child care. The procedure for selecting the sample is outlined. Data are reported for numerous characteristics of early education and care programs. Characteristics relevant to the supply of programs include the use of programs; the organizational characteristics of programs; admission policies; enrollment; staffing; program goals; and the nature of programs serving children from low-income families. Characteristics of programs include quality indicators; group size and child-staff ratio; caregiver qualifications; and program sponsorship. Discussion of fees charged by programs indicates that fees are related to various program characteristics. Trends in center- and home-based early education and care are also discussed. These trends involve enrollment, staff characteristics, services provided, and fees. A list of 40 references is provided. Appendixes include supplemental tables of data; a summary of national studies of early education and care programs; an explanation of the sample design, frame, weights, and sampling errors; the contextual variables of the sample; two copies of the survey instrument (one for center-based and one for home-based programs); and a 140-item questionnaire. (BC)

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A PROFILE OF CHILD CARE SETTINGS: EARLY EDUCATION AND CARE IN 1990

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A PROFILE OF CHILD CARE SETTINGS: EARLY EDUCATION AND CARE IN 1990

EXECUTIVE SUMMARY

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The need for nonparental early education and care has increased dramatically in the United States in the last twenty years. The labor-force participation of mothers of young children has nearly doubled, so that currently more than half of mothers with children under age 6 are employed. Moreover, recognition of the importance of early intervention for educationally disadvantaged children and interest in enrichment programs for all young children have increased, and preparing all children to start school ready to learn has become the nation's first education goal.

Until now, no national data have existed to document the shifts in family practices and the changes in formal early education and care options that have occurred in response to these increasing needs for nonparental education and care, nor have data existed to illustrate the tradeoffs that are being made as localities, providers, and parents weigh their child care options. The tradeoffs arise from conflicting priorities, including protecting children's well-being, expanding the supply of affordable care, and minimizing the cost of care. The Profile of Child Care Settings study addresses the need for current national data on the early education and care options available to parents.[1]

The Profile of Child Care Settings (PCS) study obtained information on the extent and characteristics of formal early education and care programs in computer-assisted telephone interviews with a nationally representative sample of center directors and regulated home-based providers[2] of early education and care programs. The key findings from the PCS study are summarized below.

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[1] A companion study, the National Child Care Survey 1990, addresses the need for current national data on parents' choices of early education and care arrangements for their children.

THE SUPPLY OF EARLY EDUCATION AND CARE

At the beginning of 1990, there were approximately 80,000 center-based early education and care programs with the potential to serve over 5 million children in the United States. In addition, there were approximately 118,000 regulated family day care providers with the capacity to care for 860,000 children. Several aspects of the supply of formal early education and care programs are notable:

- Trends in Supply. The supply of early education and care programs has increased substantially since the 1970s. The increase has been most dramatic among center-based programs, which have approximately tripled in number since 1976-77. The number of regulated family day care providers also appears to have increased, but by a much smaller percentage.

- Regional Supply. The supply of center-based care is distributed across regions approximately in proportion to the population of preschool children, except that there are relatively more spaces available in the South and relatively fewer spaces available in the West. In contrast, the supply of regulated home-based care is relatively more concentrated in the Midwest and West and relatively less concentrated in the Northeast and South. The greater concentration of regulated family day care programs in the Midwest and West, however, is due primarily to differences among states in the exemption of small family day care providers from regulation.

- Supply in Urban and Rural Areas. Relative to the population of preschool children, center-based care is relatively scarcer in nonmetropolitan than in metropolitan areas. Regulated home-based care is equally available in metropolitan and nonmetropolitan areas.

- Utilization of Supply. The overall utilization of the current supply is high, particularly in center-based programs. Moreover, most vacancies that exist in both center-based and regulated home-based programs are concentrated in fewer than half of all programs. The supply of center-based care is especially tight for infants and toddlers; fewer than 10 percent of all vacancies could be filled by infants and toddlers.

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[2] The National Child Care Survey 1990 identified and interviewed nonregulated family day care providers.

KEY CHARACTERISTICS OF FORMAL EARLY EDUCATION AND CARE PROGRAMS

The supply of formal early education and care programs includes a wide range of different programs serving children and families with varying characteristics. Profiles of the main types of early education and care settings are presented in Table 1. Among the key characteristics of the supply of early education and care are:

- Sponsorship. Two-thirds of center-based programs serving preschool children are nonprofit organizations. Approximately half of nonprofit programs are sponsored by organizations such as religious organizations, public schools, or Head Start. The large majority of for-profit programs are independent programs rather than members of local or national chains.

- Operating Schedules. Nearly all regulated home-based programs offer full-time care. However, only about two-thirds of center-based programs serving preschool children offer full-time care. Few formal programs provide care during evenings or weekends.

- Enrollment. The average enrollment in center-based programs is 62 children, while the average enrollment in regulated home-based programs is 6 children. These average enrollments represent increases of approximately 40 and 50 percent, respectively, since the 1970s. The average enrollment in center-based programs ranges from 50 children in Head Start programs to 91 children in for-profit chain programs.

  Approximately one-third of children in center-based programs and one-half of children in regulated home-based settings are enrolled full-time (35 or more hours per week).

  The age composition of the children cared for in early education and care settings differs, with regulated home-based programs serving proportionately more infants and toddlers and fewer preschool children age 3 and older than center-based programs. Fewer than 40 percent of the children enrolled in regulated home-based programs are 3 to 5 years old. In contrast, the proportion of children in center-based settings who are 3 to 5 years old ranges from approximately half of the children enrolled in for-profit programs to nearly all of the children enrolled in Head Start programs.

- Enrollment of Children from Low-Income and Minority Families. Fewer than half of center-based programs and fewer than one-fifth of regulated family day care providers serve publicly subsidized children. Approximately 17 percent of the children enrolled in center-based programs and 5 percent of children enrolled in regulated home-based programs come from families receiving public assistance. Relatively large proportions of the children enrolled in Head Start and other sponsored nonprofit programs are from families receiving public assistance, while only small percentages of the children enrolled in other types of programs are from low-income families. Approximately one-fourth of both the center-based and home-based programs that charge fees adjust their fees based on family income.

TABLE 1

PROFILES OF EARLY EDUCATION AND CARE SETTINGS, 1990

	Nonprofit Centers					For-Profit Centers		
	Head Start	Public Schools	Religious-Sponsored	Other Sponsor	Independent	Chain	Independent	Regulated Home-Based Programs
Average Total Enrollment	50	58	73	58	63	91	67	6
Average Percentage of Children Enrolled Who Are Age 3 to 5	99 %	83 %	74 %	74 %	69 %	48 %	59 %	39 %
Average Percentage of Children Enrolled Who Are Members of Minority Groups	57 %	48 %	22 %	45 %	27 %	21 %	21 %	19 %
Average Percentage of Children Enrolled Who Are From Families Receiving Public Assistance	68 %	n.a.	5 %	30 %	10 %	6 %	8 %	5 %
Average Percentage of Teachers Who Have a College Degree	45 %	88 %	50 %	52 %	49 %	31 %	35 %	11 %
Average Hourly Wage of Teachers	$9.67	$14.40	$8.10	$8.46	$7.40	$5.43	$6.30	$4.04
Average Annual Teacher Turnover Rate	20 %	14 %	23 %	25 %	25 %	39 %	27 %	n.a.
Average Child-Staff Ratio in Groups in Which the Youngest Child is Age 3	8.4	7.4	8.7	8.8	8.4	11.0	9.0	6.4
Percentage of Programs that Provide:								
Physical examinations	71 %	31 %	44 %	16 %	7 %	4 %	2 %	n.a.
Cognitive testing	97 %	77 %	36 %	51 %	36 %	31 %	29 %	n.a.
Percentage of Programs that Charge Parental Fees	3 %[a]	39 %	99 %	91 %	98 %	100 %	99 %	99 %
Average Hourly Fee Charged by Programs that Charge Fees	--[b]	$1.19[b]	$1.65	$1.39	$1.73	$1.47	$1.53	$1.64
Sample Size	231	255	240	131	402	94	459	583

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: n.a. means not available.

[a] A few Head Start programs reported caring for and charging fees for school-age children.

[b] Small sample size.

Substantial proportions of the children cared for in Head Start, public-school-based, and other sponsored nonprofit programs are members of minority ethnic groups, while the ethnic composition of the children enrolled in other types of programs reflects the ethnic composition of the population.

- Staffing. The average center-based program employs 5 teachers, 2 to 3 assistant teachers and aides, and 3 regular volunteers. The majority of regulated home-based providers work alone, but 40 percent have business partners or helpers to assist with child care. The ethnic composition of the staff in both center-based and regulated home-based programs reflects the ethnicity of children in care.

- Teacher Wages. Given their levels of education, preschool teachers earn very low wages. The average teacher in center-based settings earns $7.49 per hour, while the hourly earnings of the average regulated home-based provider are $4.04 per hour. Teachers in public-school-based programs earn significantly higher wages than teachers in other types of programs ($14.40 per hour).

- Health and Testing Services. Approximately 13 percent of all center-based programs offer physical examinations, and approximately 40 percent offer testing for cognitive and social development. Virtually no for-profit programs provide physical examinations, and fewer than one-third provide cognitive development testing. In contrast, nearly three-quarters of all Head Start programs provide physical examinations, and nearly all Head Start programs and three-quarters of public-school-based programs offer cognitive development testing.

- Fees Charged to Parents. Approximately 85 percent of center-based programs and nearly all regulated home-based providers charge at least some parents for the care they provide. The extent to which fees are charged ranges from only 3 percent of Head Start programs and 39 percent of public-school-based programs to nearly all of most other types of programs. The average fees charged to parents by center-based and regulated home-based programs that charge fees are remarkably similar--approximately $1.60 per hour. After adjusting for inflation, fees have not changed since the late 1970s.

  Among center-based programs, parental fees constitute an average of three-quarters of the income received by programs. The average proportion of the program budget that is met with parent fees has increased and the proportion met with government funds has declined since the late 1970s.

INDICATORS OF QUALITY IN EARLY EDUCATION AND CARE SETTINGS

It is widely agreed that the quality of care received by young children in early education and care settings is critically important for their growth and development. An examination of the characteristics of early education and care settings that research has shown to be associated with

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child development, including group size, child-staff ratios, caregiver training, and stability of care, indicates that:

- Group Sizes and Child-Staff Ratios. Group sizes and child-staff ratios have increased since the late 1970s. Today, average group sizes and child-staff ratios in center-based programs fall in the middle to upper end of the ranges of group sizes and ratios recommended by early childhood professionals. The average group sizes in regulated home-based settings tend to fall in the lower end of the recommended ranges.

  According to the directors' survey responses, the vast majority of center-based programs meet their state regulations for group sizes and child-staff ratios, and the majority of programs meet professional group size and child-staff ratio recommendations. Approximately three-quarters of regulated home-based providers reported group sizes conforming to state regulations, and half of them maintain group sizes conforming to professional group size recommendations. In general, a higher proportion of center-based programs meet professional group size and ratio recommendations for preschool children than for infants and toddlers.

  According to the group size and ratio indicators, the quality of care provided by programs serving low-income children is comparable to the quality of care provided by other programs.

- Teacher Qualifications. Teachers in center-based settings are highly educated (about half have graduated from college), and nearly all teachers have received child-related training. Teachers in public-school-based programs are substantially more likely than teachers in other types of programs to have a college degree. In contrast, 12 percent of regulated family day care providers have graduated from college, and 11 percent have not graduated from high school.

- Teacher Turnover. The overall annual rate of teacher turnover[3] in center-based settings is 25 percent. Approximately half of all center-based programs experienced some turnover in teaching staff during the year prior to the survey, and among programs experiencing turnover, the rate of turnover was quite high (50 percent). The average annual teacher turnover rate is highest in for-profit chain programs (39 percent) and lowest in public-school-based programs (14 percent).

- Family Day Care Networks. Approximately half of regulated home-based providers reported that they meet regularly with other family day care providers, and one-quarter are sponsored by an agency that organizes family day care in their area.

- Relationship Between Quality and Fees. Among formal early education and care programs that charge parental fees, those that offer higher-quality care according to the indicators of quality examined in this study also charge higher parental fees than do other programs.

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[3] Includes teachers but not assistant teachers or aides.

CONCLUSION

Recent state and federal child care legislation and the increasing emphasis on early childhood education in the nation's education goals are likely to lead to further growth in the early education and care options available to parents. The data gathered in the PCS study provide a timely baseline for future studies that will assess changes in the supply of early education and care programs that occur in response to evolving policies and practices.

ORDERING INFORMATION

To obtain *A Profile of Child Care Settings: Early Education and Care in 1990*, contact:

John Kane
U.S. Department of Education
400 Maryland Avenue, S.W.
Room 4049
Washington, DC 20202-4110

The Profile of Child Care Settings data may be ordered from:

Dr. J. J. Card
Sociometrics Corporation
170 State Street
Suite 260
Los Altos, CA 94022

RELATED REPORTS:

The Demand and Supply of Child Care in 1990: Joint Findings from The National Child Care Survey 1990 and The Profile of Child Care Settings may be ordered from:

NAEYC
1834 Connecticut Avenue, N.W.
Washington, DC 20009-5786
1-800-424-2460

The National Child Care Survey 1990 may be ordered from:

University Press of America
4720-A Boston Way
Lanham, MD 20706
1-301-459-3366

The National Child Care Survey 1990 data may be ordered from Sociometrics Corporation (see above).

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VOLUME I

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The surveys of early education and care providers were conducted under the leadership of Todd Ensor with the able assistance of Stacy Nied and a dedicated group of interviewers.

The surveys could not have been conducted without the cooperation of state and county government staff who generously discussed their state's child care system with us and provided us with lists of providers for the sample frame, as well as copies of their state's regulations. Moreover, the surveys could not have been conducted without the cooperation of the early education and care providers who were selected for participation in the study. The information about their programs that they so patiently and conscientiously shared with us is the basis of this report.

Eugene Ericksen designed the sampling strategy for the surveys, and John Hall oversaw the sampling and computed the sample weights and the design effects required for calculating standard errors.

April Brayfield and Valarie Piper provided important support during the data analysis. April Brayfield created the contextual variables used in the regression analyses, and Valarie Piper contributed to the analysis of the quality indicators and conformance with state regulations. Sharon Deich also contributed to the analysis.

The analysis programming was carefully performed by Valarie Piper, Beth Westerman, and Jennifer Berdahl.

This report was skillfully edited by Thomas Good and ably produced by Monica Capizzi, Debra Jones, and Isa Pierre.

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I. INTRODUCTION AND SUMMARY

The need for nonparental early education and care has increased dramatically in the last 20 years. The labor force participation of mothers of young children has nearly doubled, so that currently more than half of mothers with children under age 6 are employed. In addition, interest in enrichment programs for all children has grown. Moreover, recognition of the importance of early intervention for disadvantaged children has increased, and preparing children to start school ready to learn has become the nation's first education goal.

The increased recognition of the importance of early intervention for disadvantaged children has led to several recent policy initiatives, including the Family Support Act of 1988 (FSA), the Human Services Reauthorization Act (HSRA), and the 1990 Child Care and Development Block Grant (CCDBG) program. The FSA requires that welfare recipients participate in employment-directed activities and stipulates that states make child care support services available to parents while they participate in these activities. The HSRA promises to expand the Head Start program to serve all eligible low-income children by 1994. Finally, the CCDBG program provides an earned income tax credit for families with annual incomes below $20,000, as well as a state block grant program to increase the availability and affordability of care for low-income families and to improve the quality of care available in low-income areas. The FSA and the CCDBG program do not give preference to any particular type of early education and care provider, although providers receiving direct subsidies must be regulated in accordance with state provisions. Thus, the effectiveness of these policy initiatives in meeting the needs of low-income families depends largely on the availability, affordability, and quality of early education and care arrangements in their local areas.

Until now, no national data have existed to document the changes in formal early education and care options that have occurred in response to the increasing needs for nonparental early education and care, nor have data existed to illustrate the trade-offs that are being made as localities, providers, and parents weigh their child care options. The trade-offs arise from conflicting priorities, including protecting children's well-being, expanding the supply of affordable care, and minimizing the cost of care. The Profile of Child Care Settings Study addresses the need for comprehensive, up-to-date information on the supply of formal early education and care programs. Moreover, it provides a timely baseline for future studies that will assess changes in the supply of formal programs that occur in response to new policies and practices. A parallel study, the National Child Care Survey 1990 (Hofferth et al., 1991), provides current information on parents' choices of early education and care arrangements for their children.[1] In the remainder of this chapter, we briefly describe the design of the Profile of Child Care Settings Study and summarize the key findings and conclusions from the analysis.

STUDY DESIGN

Both the supply of and demand for early education and care are shaped and determined by local economic and demographic conditions, as well as by community and family values and beliefs. The supply of early education and care programs can be viewed as the result of decisions made by potential providers of care. Potential providers must decide whether or not to enter the market and supply care (on the basis of such factors as the expected demand for care, resource costs, available subsidies, and regulations). In general, the barriers to entry into the early education and care market are low relative to other industries, making it possible for potential providers to respond quickly to increasing demands for care (Magenheim, 1990).

Those who decide to supply care must also make decisions about their legal status and sponsorship, location, schedule, program goals, enrollment policies, services offered, staffing policies, and fee policies. These decisions vary considerably, reflecting the diversity of the motives for providing care (for example, making a profit or providing compensatory education for disadvantaged children), as well as the different factors that early education and care providers consider in deciding to enter the market. Once the supply and operational decisions have been made, the provider must tap into the demand for care and recruit children to serve. The level and characteristics of the early education and care programs actually supplied in the market are the result of these decisions.

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[1] A companion report will present findings from the National Child Care Survey 1990. Information about how to obtain this and other related reports can be found at the end of this report.

The supply of nonparental early education and care is extremely diverse, consisting of in-home care by a relative or unrelated caregiver, nonregulated[2] family day care, regulated family day care and group homes, and a wide range of center-based early education and care programs. The Profile of Child Care Settings Study focuses on the supply of more formal early education and care arrangements, including Head Start, public-school-based, and other nonprofit and for-profit center-based programs and regulated family day care providers and group homes.[3]

Research Questions

The questions addressed in the Profile of Child Care Settings Study pertain to the outcomes of the supply decisions made by individuals and businesses regarding the provision of early education and care services to young children. How much care is available, and what are its characteristics? To what extent is that care being utilized? How do the level and characteristics of care vary by region and urbanicity?

Several characteristics of the available supply of early education and care programs are of particular concern. One important set of characteristics are those factors found in previous research to be associated with positive developmental outcomes for children. These indicators of the quality of care include the number of children cared for together in a group, child-staff ratios, caregiver education and training, and staff turnover. In addition, early childhood professionals have identified features of the program for children, including program goals, the extent to which activities are teacher- or child-initiated, and curriculum, as important for child development. How are early childhood programs distributed along these dimensions related to child outcomes? How do these characteristics of the early education and care programs compare with various benchmarks for adequate or good quality care?

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[2] Not licensed, registered, or certified by a government agency.

[3] The level and characteristics of nonregulated family day care are being examined in the National Child Care Survey, 1990 and will be described in a separate report.

In addition to the indicators of the quality of early childhood programs, the price of care and who pays for the care are also key characteristics of early childhood programs. What is the price of the early education and care programs currently available? To what extent are programs paid for by parents, federal or state subsidies, or other sources of funds? How does the price of the available programs vary according to the characteristics of the program or provider, including indicators of quality?

Questions that are closely related to the price of early education and care programs concern the availability of programs for disadvantaged children, which may have an extended impact on their life success. What are the level and characteristics of care available to disadvantaged children? How do the services provided and the indicators of quality of programs serving disadvantaged children compare to the characteristics and qualities of other early childhood programs?

The Data

To answer these research questions, computer-assisted telephone surveys were conducted with a nationally representative sample of center directors and regulated home-based child care providers. Survey respondents received advance materials, including a worksheet enabling them to prepare for the survey, prior to the telephone interview. The interviews were conducted using computer-assisted telephone interviewing techniques that minimize errors and ensure that inconsistencies in responses are resolved prior to the conclusion of the interview.

The basic sample frame for the Profile of Child Care Settings (PCS) Study consists of the child care centers, early education programs, and home-based child care providers that are licensed or registered by the state or county in which they are located. Because the coverage of licensing regulations varies among states, this basic sample frame was augmented with programs based in religious institutions, part-day preschool programs, and other programs that states may exempt from regulation. The basic sample frame was also augmented with public and private school-based programs, which rarely fall under the jurisdiction of child care licensing and are usually regulated by state education agencies. Two types of programs--unlicensed programs that serve only school-age children and unlicensed programs serving children exclusively on a drop-in basis--were excluded from the sample frame because they do not provide *regular* care for *preschool* children. A two-stage clustered sample design was used to select a sample of early education and care providers. The final sample includes 2,089 centers and 583 regulated home-based child care providers.

KEY FINDINGS AND CONCLUSIONS

At the beginning of 1990, approximately 80,000 center-based early education and care programs with the potential to serve over 5 million children were operating in the United States. In addition, approximately 118,000 regulated family day care providers with the capacity to care for 860,000 children were operating. Several aspects of the supply of early education and care programs are notable:

- Trends in Supply. The supply of early education and care programs has increased substantially since the 1970s. The increase has been most dramatic among centers, which have tripled in number since 1976-77. The number of regulated family day care providers also appears to have increased, but by a much smaller percentage.

- Regional Supply. The supply of center-based care is distributed across regions approximately in proportion to the population of preschool children, except that there are relatively more spaces available in the South and relatively fewer spaces available in the West. In contrast, the supply of regulated home-based care is relatively more concentrated in the Midwest and West and relatively less concentrated in the Northeast and South. The greater concentration of regulated family day care programs in the Midwest and West, however, is due primarily to differences among states in the exemption of small family day care providers from regulation.

- Supply in Urban and Rural Areas. Relative to the population of preschool children, center-based care is relatively scarcer in nonmetropolitan than in metropolitan areas. Regulated home-based care is equally available in metropolitan and nonmetropolitan areas.

- Utilization of Supply. The overall utilization of the current supply is high, particularly in center-based programs. Moreover, most vacancies that exist in both center-based and regulated home-based programs are concentrated in fewer than half of all programs. Vacancies for infants and toddlers are especially limited; fewer than 10 percent of all vacancies could be filled by infants and toddlers.

The supply of formal early education and care programs includes a wide range of different programs serving children and families with varying characteristics. Profiles of the main types of early education and care settings are presented in Table I.1. Among the key characteristics of the supply of early education and care are:

- Sponsorship. Two-thirds of center-based programs serving preschool children are nonprofit organizations. Approximately half of nonprofit programs are sponsored by another organization, primarily religious organizations, public schools, or Head Start. The large majority of for-profit programs are independent programs rather than members of local or national chains.

- Operating Schedules. Nearly all regulated home-based programs offer full-time care. However, only about two-thirds of center-based programs serving 3- to 5-year-old children offer full-time care. Few formal programs provide care during evenings or weekends.

- Enrollment. The average enrollment in center-based programs is 62 children, while the average enrollment in regulated home-based programs is 6 children. These average enrollments represent increases of approximately 40 and 50 percent, respectively, since the 1970s. The average enrollment in center-based programs ranges from 50 children in Head Start programs to 91 children in for-profit chain programs.

  Approximately one-third of children in center-based programs and one-half of children in regulated home-based settings are enrolled full-time (35 or more hours per week).

  The age composition of the children cared for in early education and care settings differs, with regulated home-based programs serving proportionately more infants and toddlers and fewer preschool children age 3 and older than center-based programs. Fewer than 40 percent of the children enrolled in regulated home-based programs are 3 to 5 years old. In contrast, the proportion of children in center-based settings who are 3 to 5 years old ranges from approximately half of the children enrolled in for-profit programs to nearly all of the children enrolled in Head Start programs.

- Enrollment of Children from Low-Income and Minority Families. Approximately 17 percent of the children enrolled in center-based programs and 5 percent of children enrolled in regulated home-based programs come from families receiving public assistance. Relatively large proportions of the children enrolled in Head Start and other sponsored nonprofit programs are from families receiving public assistance, while only small percentages of the children enrolled in other types of programs are from low-

TABLE I.1

PROFILES OF EARLY EDUCATION AND CARE SETTINGS, 1990

	Nonprofit Centers					For-Profit Centers		
	Head Start	Public Schools	Religious-Sponsored	Other Sponsor	Independent	Chain	Independent	Regulated Home-Based Programs
Average Total Enrollment	50	58	73	58	63	91	67	6
Average Percentage of Children Enrolled Who Are Age 3 to 5	99 %	83 %	74 %	74 %	69 %	48 %	59 %	39 %
Average Percentage of Children Enrolled Who Are Members of Minority Groups	57 %	48 %	22 %	45 %	27 %	21 %	21 %	19 %
Average Percentage of Children Enrolled Who Are From Families Receiving Public Assistance	68 %	n.a.	5 %	30 %	10 %	6 %	8 %	5 %
Average Percentage of Teachers Who Have a College Degree	45 %	88 %	50 %	52 %	49 %	31 %	35 %	11 %
Average Hourly Wage of Teachers	$9.67	$14.40	$8.10	$8.46	$7.40	$5.43	$6.30	$4.04
Average Annual Teacher Turnover Rate	20 %	14 %	23 %	25 %	25 %	39 %	27 %	n.a.
Average Child-Staff Ratio in Groups in Which the Youngest Child is Age 3	8.4	7.4	8.7	8.8	8.4	11.0	9.0	6.4
Percentage of Programs that Provide:								
Physical examinations	71 %	31 %	44 %	16 %	7 %	4 %	2 %	n.a.
Cognitive testing	97 %	77 %	36 %	51 %	36 %	31 %	29 %	n.a.
Percentage of Programs that Charge Parental Fees	3 %[a]	39 %	99 %	91 %	98 %	100 %	99 %	99 %
Average Hourly Fee Charged by Programs that Charge Fees	--[b]	$1.19[b]	$1.65	$1.39	$1.73	$1.47	$1.53	$1.64
Sample Size	231	255	240	131	402	94	459	583

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: n.a. means not available.

[a] A few Head Start programs reported caring for and charging fees for school-age children.

[b] Small sample size.

income families. Approximately one-fourth of both the center-based and home-based programs that charge fees adjust their fees based on family income. Fewer than half of center-based programs and fewer than one-fifth of regulated family day care providers serve publicly subsidized children.

Substantial proportions of the children cared for in Head Start, public-school-based, and other sponsored nonprofit programs are members of minority ethnic groups, while the ethnic composition of the children enrolled in other types of programs reflects the ethnic composition of the population.

- Staffing. The average center-based program employs 5 teachers, 2 to 3 assistant teachers and aides, and 3 volunteers. The majority of regulated home-based providers work alone, but 40 percent have business partners or helpers to assist with child care. The ethnic composition of the staff in both center-based and regulated home-based programs reflects the ethnicity of children in care.

- Teacher Wages. Preschool teachers earn very low wages. The average teacher in center-based settings earns $7.49 per hour, while the average regulated home-based provider takes in $4.04 per hour. Teachers in public-school-based programs earn significantly higher wages than teachers in other types of programs ($14.40 per hour).

- Health and Testing Services. Approximately 13 percent of all center-based programs offer physical examinations, and approximately 40 percent offer testing or screening for cognitive and social development. Virtually no for-profit programs provide physical examinations, and fewer than one-third provide cognitive development testing. In contrast, nearly three-quarters of all Head Start programs provide physical examinations, and nearly all Head Start programs and three-quarters of public-school-based programs offer cognitive development testing.

- Fees Charged to Parents. Approximately 85 percent of center-based programs and nearly all regulated home-based providers charge at least some parents for the care they provide. The extent to which fees are charged ranges from virtually no Head Start programs and 39 percent of public-school-based programs to nearly all of most other types of programs. The average fees charged to parents by center-based and regulated home-based programs that charge fees are remarkably similar--approximately $1.60 per hour. After adjusting for inflation, fees have not changed since the late 1970s.

  Among center-based programs, parental fees constitute an average of three-quarters of the income received by programs. The average proportion of the program budget that is met with parent fees has increased and the proportion met with government funds has declined since the late 1970s.

It is widely agreed that the quality of care received by young children in child care settings is critically important for their growth and development. While this study did not directly examine quality, it collected data on the characteristics of child care settings that research has shown to be associated with child development, including group size, child-staff ratios, caregiver training, and stability of care. The findings show that:

- Group Sizes and Child-Staff Ratios. Group sizes and child-staff ratios have increased since the late 1970s. Today, average group sizes and child-staff ratios in center-based programs approach the highest group sizes and ratios recommended by early childhood professionals. The average group sizes in regulated home-based settings tend to fall in the lower end of the recommended ranges.

  The directors of the vast majority of center-based programs reported group sizes and child-staff ratios that meet their state regulations, and the majority of programs meet professional group size and child-staff ratio recommendations. Approximately three-quarters of regulated home-based providers reported group sizes conforming to state regulations, and half of them maintain group sizes conforming to professional group size recommendations. In general, a higher proportion of center-based programs meet professional group size and ratio recommendations for preschool children than for infants and toddlers.

  According to the group size and ratio indicators, the quality of care provided by programs serving low-income children is comparable to the quality of care provided by other programs.

- Teacher Qualifications. Teachers in center-based settings are highly educated (about half have graduated from college), and nearly all teachers have received child-related training. Teachers in public-school-based programs are substantially more likely than teachers in other types of programs to have a college degree. In contrast, 12 percent of regulated family day care providers have graduated from college, and 11 percent have not graduated from high school.

- Teacher Turnover. The overall annual rate of teacher turnover[4] in center-based settings is 25 percent. Approximately half of all center-based programs experienced some turnover in teaching staff during the year prior to the survey, and among programs experiencing turnover, the rate of turnover was quite high (50 percent). The average annual teacher turnover rate is highest in for-profit chain programs (39 percent) and lowest in public-school-based programs (14 percent).

- Family Day Care Networks. Approximately half of regulated home-based providers reported that they meet regularly with other family day care providers, and one-quarter are sponsored by an agency that organizes family day care in their area.

- Relationship Between Quality and Fees. Among formal early education and care programs that charge parental fees, those that offer higher quality care according to the indicators of quality examined in this study also charge higher parental fees than do lower quality programs.

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[4] Includes teachers but not assistant teachers and aides.

OUTLINE OF THE REPORT

The remainder of this report is organized into five chapters. Chapter II presents the sample design and survey results for the study. Chapter III describes the level and characteristics of the supply of formal early education and care programs available in the United States at the beginning of 1990. Chapter IV examines the qualities of early education and care settings that affect children's development. Chapter V presents information about the fees charged for care and the factors that influence fees. Finally, Chapter VI examines trends in the supply and characteristics of formal early education and care.

II. SAMPLE DESIGN

Telephone surveys were conducted with a nationally representative sample of formal early education and care programs. The sample for the telephone surveys was selected in two stages. In the first stage, a random sample of 100 counties or groups of counties that are representative of counties in the United States was selected. Counties were stratified according to region, metropolitan status, and poverty level and were selected from each stratum with a probability proportional to the size of the population younger than age 5. In the second stage, a stratified random sample of providers within the sample of counties was drawn. The providers were sorted into strata according to type of provider (Head Start programs, public-school-based programs, other center-based programs, and regulated home-based programs) to ensure that each category of provider was represented.

The following sections describe the sample frame for the surveys, present information on interview completion rates and completed sample sizes, summarize the calculation of sample weights, and discuss the precision of the estimates generated from the surveys. Volume II presents further details on the sample design.

SAMPLE FRAME

The sample frame for the Profile of Child Care Settings surveys comprises the following types of providers:

- All child care centers and early education programs that are licensed by state or county child care licensing organizations;
- Unlicensed Head Start programs, church-based programs and part-day preschool programs located in states that do not require that these programs be licensed;
- Public-school-based early education programs that are not licensed by state child care licensing agencies; and
- Regulated home-based child care providers, including home-based group day care providers where they are defined and regulated as a separate category of provider.

The basic sample frame consists of the child care centers, early education programs, and home-based child care providers that are licensed or registered by the state or county in which they are located. Because the coverage of licensing regulations varies among states, this basic sample frame was augmented with church-based programs, part-day preschool programs, and other programs that are exempt from licensing in some states.[1] The basic sample frame was also expanded to include public and private school-based programs, which rarely fall under the jurisdiction of child care licensing and are usually regulated by state education departments. Two types of programs--unlicensed programs that serve only school-age children and unlicensed programs that serve children exclusively on a drop-in basis--were specifically excluded from the sample frame because they do not provide *regular* care for *preschool* children and the lists were too difficult to obtain.

Because the quality of national lists of licensed child care providers available from vendors was questionable and because it would have been necessary to obtain lists of some providers from state and county sources under any sampling strategy, the sample frame lists were assembled by contacting state and local agencies in the states and counties selected to participate in the study.

SAMPLE SIZES AND COMPLETION RATES

Interviews were completed with the directors of 2,089 center-based early education and care programs and 583 regulated family day care providers (Table II.1). Completion rates with centers are high, ranging from 86 percent among "other" center-based programs to 98 percent among Head Start programs.[2]

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[1] Some part-day programs are exempt in 11 states in the sample. Despite our efforts to obtain lists of exempt part-day programs, it is likely that a small number of part-day programs were not included in the sample frame, since 7.6 percent of centers in states that exempt part-day programs compared with 10.6 percent of centers in other states reported operating for 4 hours per day or less, the most common threshold for exemption. Thus, the estimates of the total number of centers and the total number of children enrolled in centers may be slightly underestimated.

[2] The primary reasons given by nonrespondents for refusing to complete the interview were lack of interest in the survey and lack of time for the interview. Based on sample frame information, it does not appear that refusals were concentrated in any particular type of program.

TABLE II.1

RESPONSE RATES

	Centers	Head Start	Public Schools	All Center Programs	Home-Based Providers
Total Eligible Cases	1,702	217	437	2,356	669
Completed interviews	1,459	213	417	2,089	583
Refusals	232	4	20	256	39
Could not locate	10	0	0	10	37
Language barrier	1	0	0	1	10
Percentage of Eligible Cases:					
Completed	85.7 %	98.2 %	94.5 %	88.7 %	87.1 %
Refused	13.6	1.8	4.6	10.9	5.8
Not located	0.6	0.0	0.0	0.4	5.5
With language barrier	0.1	0.0	0.0	0.0	1.5

SOURCE: Profile of Child Care Settings Surveys (Mathematica Policy Research, Inc., 1990)

Completion rates among regulated family day care providers are also high (87 percent). If we assume that home-based providers who were unlocatable are ineligible for inclusion in the sample frame because they were unlikely to be providing care in the sample county--not an unlikely possibility given the intensive efforts made to locate providers--then the response rate for regulated family providers is 92 percent.

SAMPLE WEIGHTS

The sample design followed for the Profile of Child Care Settings surveys necessitated using sample weights to correct for nonuniform sampling rates across strata. In general, a weight for each observation was computed that equaled the inverse of the sampling rate for the stratum from which the observation was drawn, where the stratum was defined by the type of provider and the primary sampling unit (county) from which the provider was sampled. Weights differed across strata to the extent that the rate of eligibility for the survey and the response rate of eligible providers varied across strata. They also varied to the extent that providers of particular types were sampled at different rates. Volume II describes the construction of sample weights in detail.

SAMPLE PRECISION

Tables II.2 and II.3 summarize the precision of the descriptive statistics and tabulations based on weighted data. The half-widths of the 95 percent confidence intervals for the entire sample of center-based early education and care programs for estimated proportions range from 2 to 3 percentage points, depending on the level of the estimated proportion. The half-widths of the confidence intervals for subsamples of programs are somewhat larger, increasing to 8 percentage points for estimated proportions around 50 percent for subgroups that include 200 programs.

The half-widths of the 95 percent confidence intervals for the entire sample of regulated home-based providers range from 3 to 6 percentage points, depending on the level of the estimated proportion. Again, the half-widths of the confidence intervals are larger for subsamples of providers,

TABLE II.2

HALF-WIDTHS OF THE 95% CONFIDENCE INTERVALS FOR PROPORTIONS

Center-Based Programs

		Proportion Measured			
Sample Size	Average Design Effect	0.1 0.9	0.2 0.8	0.3 0.7	0.5
2,089	2.16	0.02	0.03	0.03	0.03
2,000	2.12	0.02	0.03	0.03	0.03
1,900	2.08	0.02	0.03	0.03	0.03
1,800	2.03	0.02	0.03	0.03	0.03
1,500	1.90	0.02	0.03	0.03	0.03
1,200	1.77	0.02	0.03	0.03	0.04
1,000	1.69	0.02	0.03	0.04	0.04
800	1.60	0.03	0.04	0.04	0.04
500	1.47	0.03	0.04	0.05	0.05
200	1.34	0.05	0.06	0.07	0.08

Regulated Home-Based Programs

		Proportion Measured			
Sample Size	Average Design Effect	0.1 0.9	0.2 0.8	0.3 0.7	0.5
583	1.90	0.03	0.04	0.05	0.06
500	1.76	0.03	0.05	0.05	0.06
400	1.60	0.04	0.05	0.06	0.06
300	1.44	0.04	0.05	0.06	0.07
200	1.28	0.05	0.06	0.07	0.08
100	1.11	0.06	0.08	0.10	0.10
50	1.09	0.09	0.12	0.13	0.15

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: For a given sample size, there is a 95 percent probability that the actual population percentage is in the range between the sample estimate minus the number given in the table and the sample estimate plus the number given in the table.

TABLE II.3

SIGNIFICANT DIFFERENCES BETWEEN GROUPS,
95% LEVEL OF CONFIDENCE

Center-Based Programs

Sample Size		Smaller Proportion Near				
Group 1	Group 2	0.1	0.2	0.3	0.5	0.7
1,525	550	0.04	0.05	0.06	0.06	0.06
1,045	1,045	0.03	0.04	0.05	0.06	0.05
800	800	0.04	0.05	0.06	0.06	0.06
800	500	0.04	0.06	0.06	0.07	0.06
500	500	0.05	0.06	0.07	0.08	0.07
500	200	0.06	0.08	0.09	0.10	0.09
200	200	0.07	0.09	0.10	0.11	0.10

Regulated Home-Based Programs

Sample Size		Smaller Proportion Near				
Group 1	Group 2	0.1	0.2	0.3	0.5	0.7
475	200	0.06	0.08	0.09	0.10	0.09
290	290	0.06	0.08	0.09	0.10	0.09
200	200	0.07	0.09	0.10	0.11	0.10
200	100	—	0.10	0.12	0.13	0.12
100	100	—	0.12	0.13	0.15	0.13
100	50	—	—	0.16	0.18	0.16
50	50	—	—	—	0.21	—

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The numbers in the table represent the smallest difference between sample estimates for two different subgroups of the given sizes that is statistically significant at the 95 percent confidence level. For example, when comparing two proportions for subgroups of 800 center-based programs each, with the smaller proportion near 0.2, the difference between the two proportions is statistically significant at the 95 percent confidence interval if it is 0.05 or greater.

increasing to 10 percentage points for estimated proportions around 50 percent for subgroups of 100 home-based providers.

Statistically significant differences among subgroups of center-based programs range from 3 to 11 percentage points, depending on the size of the subgroups and the levels of the estimated proportions (Table II.3). Similarly, statistically significant differences among subgroups of regulated home-based providers range from 6 to 21 percentage points, depending on the size of the subgroups and the levels of the estimated proportions. The differences between subgroups that are discussed in this report are those that are statistically significant and important for characterizing the diversity of the formal programs that are available.

III. THE NATIONAL SUPPLY OF EARLY EDUCATION AND CHILD CARE

The most basic research questions addressed in the Profile of Child Care Settings Study pertain to the outcomes of the supply decisions made by individuals and businesses about providing early education and care services to young children. How much care is available, and what are its characteristics? To what extent is that care being utilized? The first section of this chapter describes the availability of center-based and regulated home-based early education and care programs and the overall extent to which these programs are being utilized. The following sections describe the general organizational characteristics of early education and care programs, their admission policies and recruitment strategies, their enrollment and vacancy patterns, their staffing levels and characteristics, and their program goals and activities.

THE SUPPLY AND UTILIZATION OF EARLY EDUCATION AND CARE PROGRAMS

The need for early education and care for children under school age has increased dramatically in the last 20 years due to changes in family structure, women's employment, and the demand for preschool education. The proportion of children younger than age 6 who live with only one parent has nearly doubled since 1970, rising from 10 to 19 percent in 1987. Due partly to the growing proportion of single mothers, the labor-force participation of mothers of children younger than age 6 has also increased dramatically in recent years, rising from 30 percent in 1970 to 56 percent in 1988. In addition to the increased need for child care by mothers working outside the home, the demand for compensatory and enrichment programs for the preschool children of mothers not working outside the home has also increased. Thus, the availability of nonparental early education and care arrangements to meet the growing needs of parents has become a prominent policy concern.

The remainder of this section describes the national supply of formal early education and care programs and the extent to which the available programs are currently being utilized. Although the national market for early education and care consists of a large set of local markets, an examination of the overall supply provides a crude assessment of the outcomes of supply decisions made by individuals and businesses.

The Supply of Early Childhood Programs

The parents of young children in the United States face a wide array of choices if they seek nonparental care and education of their children who are under school age. Among the types of early education and care arrangements available to them are in-home care, informal family day care arrangements, regulated[1] family day care programs, and formal center-based programs. As discussed in Chapter II, the Profile of Child Care Settings (PCS) Study examines the supply of formal early childhood programs, including regulated home-based child care settings[2] and center-based early education and care programs.

The regulatory context in which early education and care is supplied plays an important role in the types of programs that are defined as formal and in the amount and characteristics of the care that is supplied. The coverage of state regulations governing family day care varies widely nationwide. For example, small family day care providers are exempt from regulations in many states (Figure III.1) and, thus, are not included in the PCS Study. Smaller family day care providers in the West and Midwest are more likely to be subject to regulations--and thus to have been included in the study--than are smaller providers in the Northeast and South.

The exemption of centers from regulations also varies among the states, with a small number of states exempting specific types of centers. Among the types of centers that are exempt from licensing

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[1] Regulated home-based programs include all family day care programs that are registered, certified, or licensed by state or county government agencies.

[2] The National Child Care Survey 1990 collected information on nonregulated family day care homes. A separate report will discuss the supply of both nonregulated and regulated home-based care.

FIGURE III.1

DISTRIBUTION OF STATES BY MINIMUM SIZE OF FAMILY DAY CARE REQUIRED TO BE REGULATED

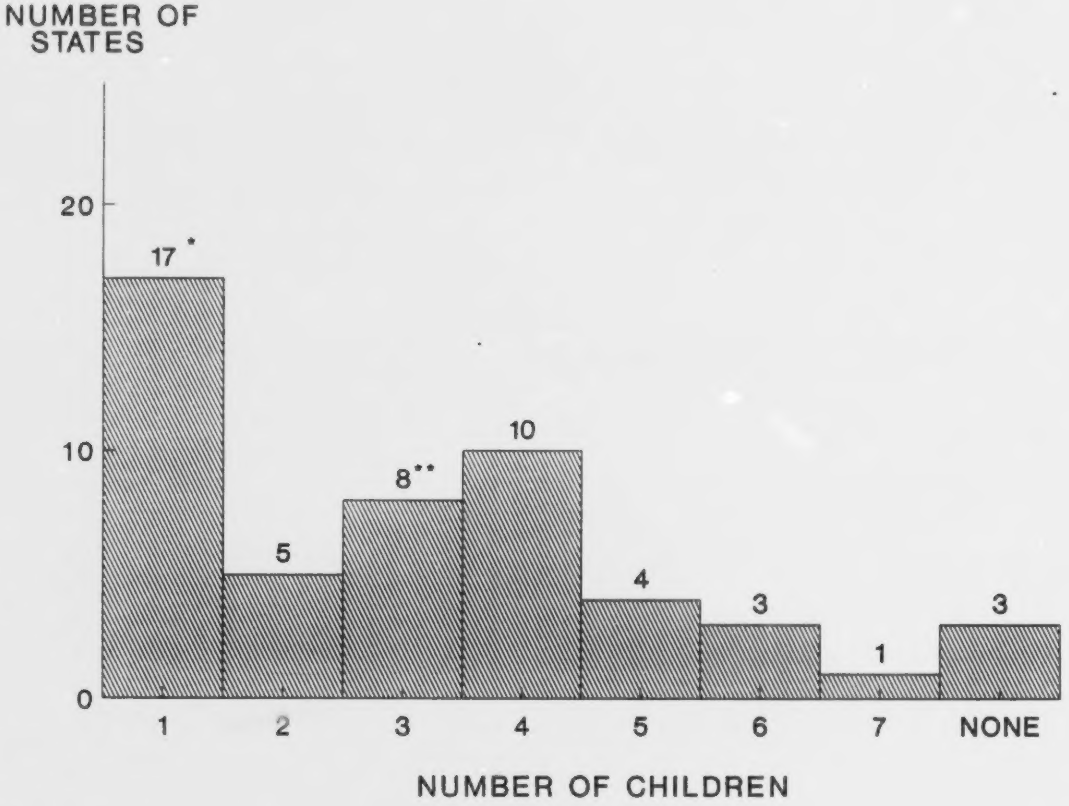

FIGURE READS: 5 STATES REQUIRE THAT FAMILY DAY CARE PROVIDERS WHO CARE FOR 2 OR MORE CHILDREN BE REGULATED.

SOURCE: HAYES ET AL., 1990.

* 4 OF THESE STATES HAVE VOLUNTARY REGISTRATION

** 1 OF THESE STATES HAS VOLUNTARY REGISTRATION in some states are centers sponsored by religious organizations (exempt in 13 states) and part-day programs (exempt in 18 states). Public school programs, private school programs, and federal programs generally fall under the jurisdiction of state departments of education or federal government agencies and are exempt from child care licensing in the majority of states (Morgan, 1987; and Children's Defense Fund, 1990). These key types of exempt, center-based programs were included in the PCS Study.

Centers

At the beginning of 1990, approximately 80,000 center-based early education and care programs with the potential to serve over 5 million children were providing services in the United States (Table III.1).[3] Estimates of the supply of centers based on state licensing lists overstate the number of centers actually operating. Approximately 12 percent of the centers included on state licensing lists were no longer operating at the time of the survey.[4]

Of the 80,000 center-based early education and care programs, approximately 3,600 (4.4 percent) are centers primarily for children with diagnosed handicaps (Table III.1). Almost all programs for handicapped children serve preschool children age 3 and older. Approximately 76,500 center-based early education and care programs are not primarily for handicapped children. Of these centers, approximately 71,300 serve preschool children age 3 and older. The remaining 5,200 centers serve only infants and toddlers and/or school-age children.

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[3] These programs include all licensed center-based early education and care programs, as well as religious-sponsored, part-day, and school-based preschool programs that are exempt from licensing. Licensed before- and after-school programs are included, but unlicensed before- and after-school programs are not. See Chapter II for a discussion of the sample frame for the study.

[4] The percentage of sampled centers on state licensing lists that were no longer operating varies among counties, ranging from 0 to 50 percent. It is unknown how many centers came into existence between the time the lists were created and the time of the survey.

TABLE III.1

SUPPLY OF CENTER-BASED EARLY EDUCATION AND CARE IN THE UNITED STATES, 1990

	Number	Standard Error	Percent
Total Number of Programs	80,072	(4,189)	100.0 %
Northeast	14,197	(3,372)	17.7
South	33,011	(5,351)	41.2
Midwest	18,472	(3,631)	23.1
West	14,392	(3,247)	23.1
Programs Primarily for Handicapped Children	3,558	(458)	4.4
Serve preschool[a] children	3,254	(433)	4.1
Do not serve preschool[a] children	304	(131)	0.3
Programs Not Primarily for Handicapped Children	76,514	(4,119)	95.6
Serve preschool[a] children	71,309	(3,881)	89.1
Do not serve preschool[a] children	5,205	(646)	6.5
Serve infants and toddlers only	682	(191)	0.9
Serve school-age only	4,460	(612)	5.5
Serve infants, toddlers, and school-age only	121	(63)	0.1
Total Number of Spaces	5,333,067	(130,170)	100.0
Northeast	872,166	(45,060)	16.4
South	2,246,649	(74,752)	42.1
Midwest	1,211,614	(50,260)	22.7
West	1,002,638	(44,209)	18.8

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table includes all licensed center-based programs as well as exempt religious-sponsored, part-day, and school-based preschool programs.

[a] Preschool children are children age 3 and above who are not yet in school.

Centers are distributed across regions and metropolitan/nonmetropolitan[5] areas of the United States approximately in proportion to the population of children younger than age 5 (Table III.2). Approximately 18 percent of centers are located in the Northeast, 41 percent are located in the South, 23 percent are located in the Midwest, and 18 percent are located in the West. Approximately three-fourths of centers are located in metropolitan areas, and one-fourth are located in nonmetropolitan areas.

Regulated Home-Based Programs

At the beginning of 1990, approximately 118,000 regulated family day care providers with the capacity to care for 860,000 children were operating in the United States (Table III.3). This total number of providers is considerably smaller than the number suggested by state licensing and registration lists[6], primarily because the lists are not updated continuously, and many providers included on these lists have gone out of business. In the PCS survey of home-based programs, 30 percent of the providers sampled from state licensing lists were no longer providing care at the time of the survey.[7]

Unlike centers, regulated family day care programs are not distributed across regions in the same proportions as are children younger than age 5 who potentially need care. Relative to the population of preschool children, fewer regulated home-based programs are located in the Northeast and South, and more programs are located in the Midwest and West (Table III.2). In part, this disparity

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[5] Metropolitan areas include counties that are part of Standard Metropolitan Statistical Areas. Nonmetropolitan areas include counties that are not part of SMSAs. Metropolitan areas consist of urban counties (those with cities of 100,000 or more) and suburban counties (those with no cities of 100,000 or more).

[6] For example, the National Academy of Sciences Panel on Child Care Policy surveyed states to ascertain the number of home-based providers who were regulated; it found state lists contained 198,000 providers (Hayes et al., 1990).

[7] The percentage of sampled regulated family day care providers who were no longer providing care varied among counties, ranging from 0 to more than 50 percent. It is unknown how many new providers went into business between the time the lists were created and the time of the survey.

TABLE III.2

DISTRIBUTION OF PRESCHOOL CHILDREN, EARLY CHILDHOOD PROGRAMS, AND PROGRAM SPACES BY REGION AND URBANICITY

	Children Younger Than 5[a]	Centers	Spaces in Centers	Regulated Home-Based Programs	Spaces in Regulated Home-Based Programs
Region					
Northeast	19 %	18 %	16 %	14 %	11 %
South	35	41	42	21	20
Midwest	24	23	23	29	32
West	23	18	19	36	37
Urbanicity					
Metropolitan	75	76	83	77	77
Nonmetropolitan	25	24	17	23	23

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] The distribution of children younger than age 5 by region is estimated from projections of 1980 census data to 1988 (U.S. Bureau of the Census, 1989). The distribution of children younger than age 5 by urbanicity is estimated as the distribution of the population by urbanicity in 1980 (U.S. Bureau of the Census, 1983).

TABLE III.3

THE SUPPLY OF REGULATED HOME-BASED EARLY EDUCATION AND CARE IN THE UNITED STATES, 1990

	Number	Standard Error	Percent
Total Number of Programs	117,995	(12,098)	100.0 %
Northeast	16,417	(6,832)	13.9
South	24,567	(5,325)	20.8
Midwest	34,493	(8,589)	29.2
West	42,518	(10,827)	36.0
Total Number of Spaces	859,506	(17,124)	100.0
Northeast	90,740	(4,685)	10.6
South	175,325	(5,621)	20.4
Midwest	276,119	(7,350)	32.1
West	317,322	(9,239)	36.9

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

reflects the regional differences in the minimum size of family day care homes required to be regulated.

Approximately three-quarters (77 percent) of regulated home-based programs are located in metropolitan areas, while approximately one-quarter are located in nonmetropolitan areas (23 percent). This distribution of providers mirrors the distribution of the population of children among metropolitan and nonmetropolitan areas.

Capacity

Because program capacity varies substantially, it is important to examine the available supply of formal early education and care programs in terms of the number of children for whom they can provide care.

Centers

In the United States at the beginning of 1990, approximately 5.3 million spaces[8] were available in center-based early education and care programs that were not primarily for handicapped children (Table III.1). Of these spaces, approximately 4.2 million were for children under school age, and 1.1 million were for school-age children.[9]

Spaces in centers are distributed across regions in proportion to the population of children but are more concentrated in metropolitan areas. As with the distribution of centers, the distribution of spaces across regions is very similar to the distribution of preschool children, with slightly more spaces available in the South and slightly fewer in the other regions relative to the population of children younger than age 5 (Table III.2). However, spaces in centers are concentrated more in metropolitan

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[8] Because not all center-based programs are licensed, spaces are defined as the sum of enrollment and vacancies.

[9] Recall that the sample frame does not include before- and after-school programs that are not licensed.

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areas than is the population. While 75 percent of the population live in metropolitan areas, 83 percent of spaces in center-based early education and care settings are located in metropolitan areas.

Regulated Home-Based Programs

In the United States at the beginning of 1990, approximately 860,000 spaces[10] were available in regulated family day care settings (Table III.3). Spaces in regulated family day care homes are distributed across regions in proportions similar to the proportions of providers, but in proportions different from the proportions of preschool children, again reflecting differences in the coverage of state regulations of family day care (Table III.2). Thus, spaces in regulated home-based child care settings are relatively rarer in the Northeast and South and relatively more common in the Midwest and West.

As with programs, spaces in regulated home-based settings are distributed across metropolitan and nonmetropolitan areas in proportion to the population. Three-quarters (77 percent) of the spaces in regulated home-based settings are located in metropolitan areas, while one-fourth are located in nonmetropolitan areas.

Utilization

In order to assess the adequacy of the current supply of formal early education and care programs, the utilization of the available programs must be examined. Low utilization rates would suggest either that the available supply is more than adequate to meet parents' needs or that some parents who demand formal care are unable to access the current supply due to information, cost, or location barriers. Information on unmet demand for formal care by the parents of young children (not available from the surveys of providers) is necessary to distinguish among these potential explanations for low utilization rates. High utilization rates, on the other hand, would indicate that the current supply of care either just meets parents' needs or is insufficient to meet the needs of all parents who want formal education and care for their preschool children. Information on unmet demand for formal care would also be required to determine whether high utilization rates indicate an insufficient supply of formal programs.

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[10] Spaces in regulated home-based settings represent the number of children for whom the provider is licensed to provide care.

The overall utilization rate of formal programs, defined as total enrollment divided by total capacity, is a very broad indicator of the adequacy of the supply of formal early education and care services in the United States. Overall utilization rates mask local market differences in utilization; to the extent that local markets with an excess supply of program spaces exist, then the overall utilization rate will be less than 100 percent. It should also be kept in mind that, even when supply is insufficient, one would not expect 100 percent utilization due to vacancies that temporarily exist because of turnover in enrollment.

Centers

The overall utilization rate[11] in centers is higher than the utilization rate in home-based settings and is sufficiently high to suggest that the supply of care in center-based early childhood programs is close to being utilized fully. Overall, 88 percent of the available spaces in centers were filled at the beginning of 1990. Utilization rates in centers are remarkably similar across regions and urban, suburban, and rural areas.

Utilization rates are not uniform across all programs. Although utilization rates in individual centers[12] average 88 percent, average utilization rates in the majority of centers are higher than 93 percent, and the average utilization rates in more than one-fourth of centers are 100 percent (Table III.4). These high utilization rates suggest that programs are operating at capacity in many local areas.

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[11] The utilization rate in centers is defined as enrollment divided by capacity, where capacity is enrollment plus vacancies.

[12] For each group in center-based programs, utilization rates were calculated as enrollment divided by the sum of enrollment and vacancies. An average utilization rate among groups was then computed for each program.

TABLE III.4

AVERAGE UTILIZATION RATES IN CENTERS BY TYPE OF GROUP

	Average Utilization Rate[a]	Standard Error	Median Utilization Rate	Sample Size
All Groups	88 %	(0.5)	94 %	1,918
Full-Time[b] Groups	88	(0.6)	93	884
Part-Day[b] Groups	86	(0.6)	95	1,040
Part-Week[b] Groups	89	(0.6)	96	806
Groups Including:				
Infants	86	(1.1)	100	452
Toddlers	89	(0.7)	98	923
Preschool children	88	(0.5)	95	1,772
School-age children	82	(1.4)	95	372

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs primarily for handicapped children.

[a] The utilization rate is defined as enrollment divided by enrollment plus vacancies averaged across groups of the specified type.

[b] Full-time groups meet 5 days per week and at least 7 hours per day. Part-day groups meet 5 days per week and less than 7 hours per day. Part-week groups meet less than 5 days per week.

Average utilization rates do not vary among groups according to whether groups are full-time, part-day, or part-week groups, nor do they vary much according to the ages of children included in the groups (Table III.4). The average utilization rate in full-time groups is 88 percent, compared with 86 percent in part-day groups and 89 percent in part-week groups. Similarly, average utilization rates based on the ages of children vary from 82 percent for groups that include school-age children to 89 percent for groups of toddlers. Although differences in the average utilization rate suggest that the utilization of supply is similarly high for children of different ages, differences in the median utilization rates suggest that in the majority of programs infant care is slightly less available relative to demand than is care for older children.

In general, the high overall utilization rates in centers and the similarity of utilization rates across regions, urban and rural areas, and types of care suggest that the supply of center-based early education and care programs is being utilized fully in many local areas. The market seems to be working to increase supply as demand expands. It is also evident that, as parents and policymakers have perceived, a shortage of centers may exist in some local areas where centers are 100 percent utilized.

Regulated Home-Based Programs

Overall, the utilization rate[13] of regulated home-based spaces is high but indicates that some excess capacity may exist in regulated home-based settings.[14] Approximately 82 percent of the spaces available in regulated home-based settings were filled at the beginning of 1990.

The unfilled spaces are distributed evenly across regions of the country but are concentrated more in urban areas than in suburban and rural areas. Only 77 percent of regulated family day care spaces in urban areas were filled at the beginning of 1990, compared with 84 percent of spaces in suburban areas and 88 percent of spaces in rural areas.

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[13] The utilization rate in home-based settings is defined as enrollment divided by capacity, where capacity is the number of children for whom the provider is licensed to provide care. To the extent that providers are not willing to care for the total number of children for whom they are licensed, the average utilization rate underestimates the true utilization rate.

[14] Reported levels of turnover in enrollment are insufficient to account for the full extent to which programs are not being utilized (see section on turnover in enrollment later in Chapter III).

GENERAL ORGANIZATIONAL CHARACTERISTICS OF PROVIDERS

Among the important operating decisions of suppliers of early education and care, particularly suppliers of centers, are decisions about the legal status and auspices of their program; the basic parameters of the services they will offer, including the size, location, and operating schedule of their program; and their financial structure, especially their sources of operating funds. These fundamental decisions shape the services and activities provided to children and families.

Legal Status

There is a widespread perception that the legal status of center-based early education and care programs has wide-ranging implications for the goals, services, and quality of care provided. Kagan and Newton (1989) highlighted some of the ideological differences characterizing the debate about nonprofit/for-profit care. Nonprofit centers claim that they provide higher quality care, because they must devote all income to program expenses, and their motivation is to serve children rather than to make a profit. For-profit centers argue that their dependence on the satisfaction of parents motivates them to manage efficiently and to be responsive to the needs of the children and their parents. For-profit centers do not necessarily make large profits.

For-profit centers are predominantly independently owned and operated businesses (83 percent); only 11 percent are part of national chains, and 6 percent are part of local chains. Among for-profit centers, those operated as part of a national chain are more prevalent in the West and South (13 and 12 percent, respectively) and less prevalent in the Midwest and Northeast (8 and 6 percent, respectively). National chains are extremely rare in rural areas, constituting only 1 percent of rural for-profit centers, and most common in urban areas, constituting 16 percent of for-profit centers.

Nonprofit centers are more prevalent than for-profit centers. Approximately one-third of centers that serve preschool children age 3 and older in the United States are for-profit organizations; two-thirds are nonprofit organizations. For-profit centers are more prevalent in the South (44 percent versus 30, 28, and 32 percent of centers in the Northeast, Midwest, and West, respectively) (Figure III.2); they are also more prevalent in suburban areas (43 percent of centers in suburban areas versus 29 and 36 percent in urban and rural areas, respectively) (Figure III.3).

Essentially all regulated home-based programs operate for profit and have no official nonprofit status.

Sponsorship

A wide range of organizations sponsor early childhood programs. Sponsorship was defined in the survey as a program's belonging to or having an affiliation with another organization from which the program receives direction and/or funding. Slightly more than half (58 percent) of nonprofit centers that serve preschool children age 3 and older reported that they are sponsored by a public school, a church or synagogue, Head Start, or another type of organization. Among the nonprofit centers that are sponsored by another organization, 15 percent reported having multiple sponsors.

Religious organizations are the most prevalent type of sponsor. Among the nonprofit centers that reported having sponsors, 39 percent reported being sponsored by a religious organization. Thus, among *all* centers that serve preschool children age 3 and older, approximately 15 percent are sponsored by religious organizations (Table III.5). Among the religious organizations that sponsor center-based early education and care programs, religious private schools constitute only a small percentage of religious sponsors (3 percent). Sponsored nonprofit centers in the South are more likely than centers in other regions to be sponsored by a religious organization (47 percent of sponsored nonprofit centers versus 38 percent in the Midwest, 33 percent in the West, and 31 percent in the Northeast) (Table III.6). However, among all centers (both for-profit and nonprofit), the percentage that are sponsored by religious organizations does not differ significantly by region.

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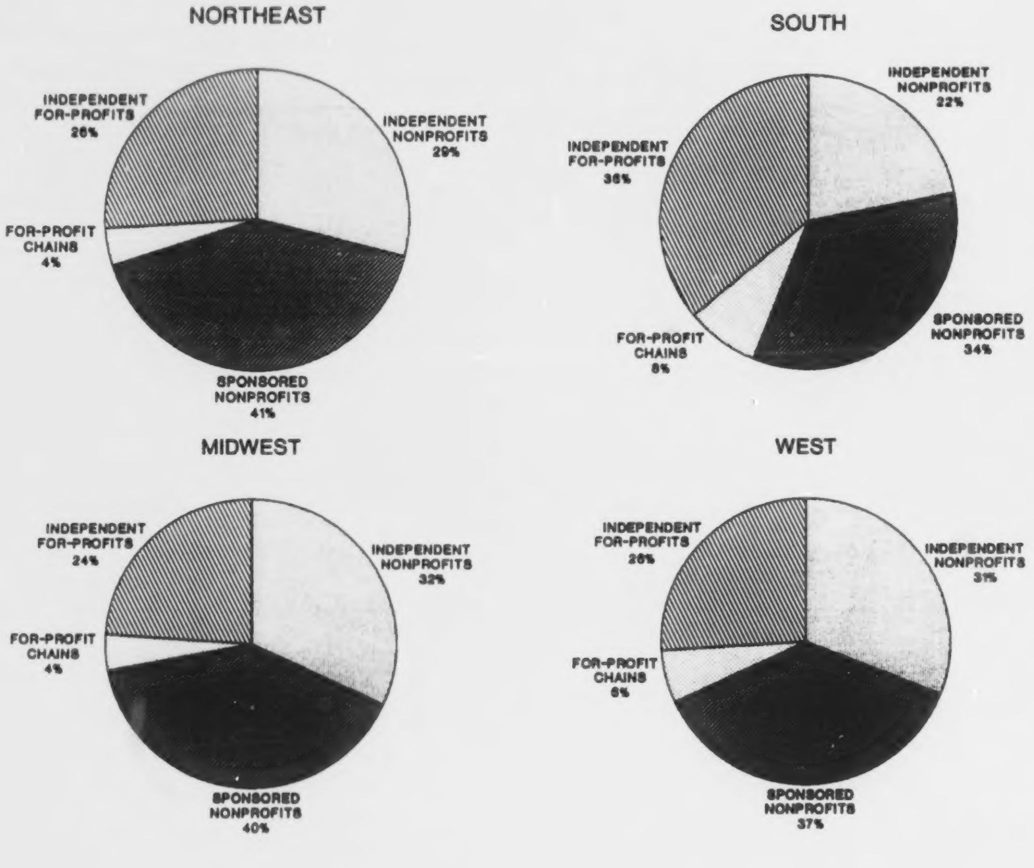
FIGURE III.2

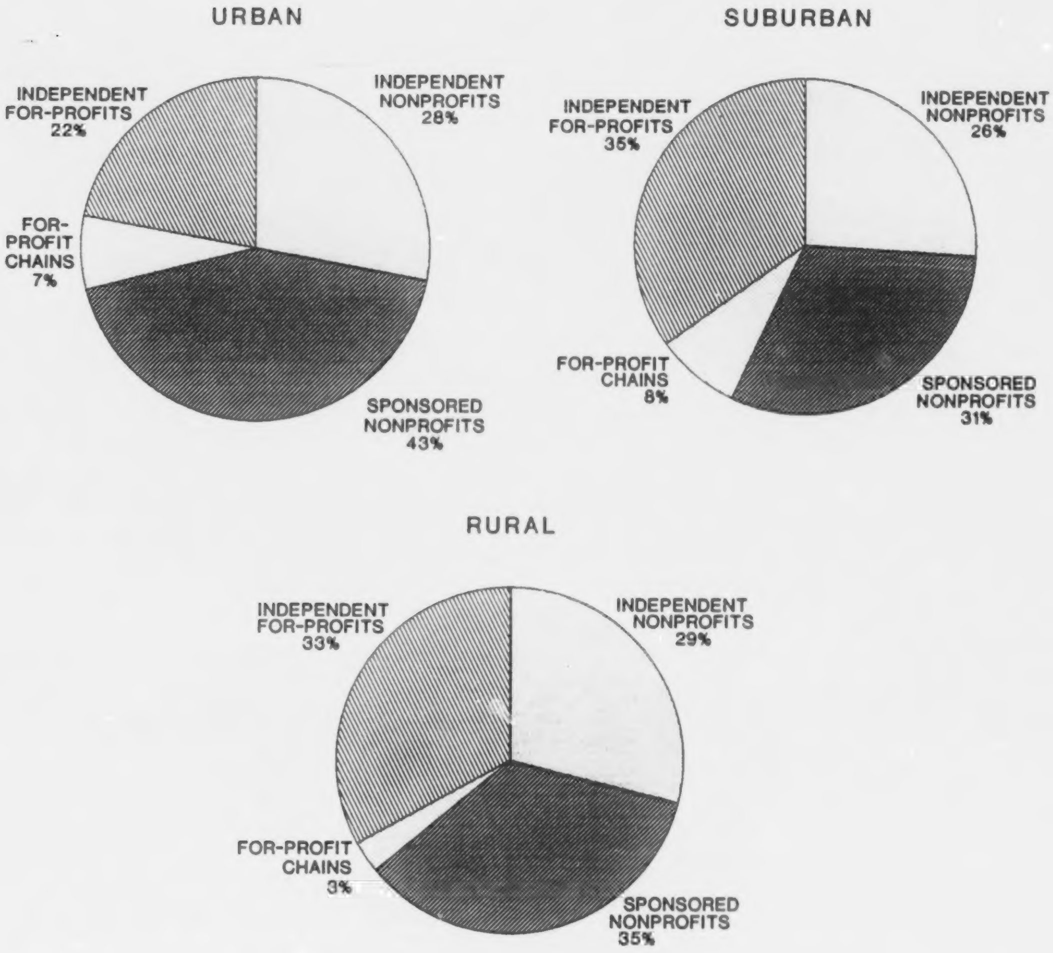
LEGAL STATUS AND SPONSORSHIP OF CENTERS BY REGION



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

FIGURE III.3

AUSPICES OF CENTERS BY URBANICITY



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

TABLE III.5

THE SUPPLY OF CENTERS AND SPACES BY AUSPICE

Type of Program	Number of Programs	Standard Error	Percent	Number of Spaces	Standard Error	Percent
Nonprofit Programs						
Head Start programs[a]	6,437	(619)	9.0 %	329,887	(25,732)	6 %
Public school programs	5,469	(676)	7.7	354,966	(20,610)	7
Religious-sponsored programs	10,622	(925)	14.9	893,451	(41,655)	18
Other sponsored programs[b]	5,646	(721)	7.9	351,922	(29,443)	7
Independent programs	17,963	(1,303)	25.2	1,268,350	(55,588)	25
For-Profit Programs						
National or local chains	4,181	(663)	5.9	454,567	(25,615)	9
Independent programs	20,941	(1,842)	29.4	1,398,604	(61,147)	28

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc. 1990).

NOTE: The table excludes programs primarily for handicapped children and programs that do not serve preschool children age 3 to 5.

[a] The estimates of the number of Head Start programs and their enrollments are lower than figures compiled by the Administration for Children, Youth, and Families (ACYF), the administering agency for the Head Start program. There are several possible reasons for the differences. The ACYF figures are based on management information system data compiled using a different methodology than that used in the PCS. Sampling error may also be a contributing factor. In addition, the PCS may have excluded home-based Head Start programs which are included in the ACYF counts. Children enrolled in home-based programs constitute 5 to 10 percent of all children (as many as 45,000) enrolled in Head Start.

[b] Other sponsors include state and local government agencies, community agencies, private schools, social service agencies, and employers.

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TABLE III.6

SPONSORSHIP OF NONPROFIT CENTERS SERVING 3- TO 5-YEAR-OLD CHILDREN BY REGION

	Northeast	South	Midwest	West
Percentage of Nonprofit Centers That Are Sponsored	58 %	60 %	56 %	54 %
Among Nonprofit Centers That Are Sponsored, the Percentage That Are Sponsored by:[a]				
Head Start	26	21	27	24
Public schools (Chapter 1)	26 (6)	29 (9)	40 (11)	29 (2)
Religious organizations	31	47	38	33
State or local government	16	16	13	20
Nongovernment community organizations	17	9	8	13
College or university	6	2	3	7
Private school	2	1	4	1
Social service agency	9	2	2	1
Other	3	3	1	4
Sample Size	242	440	325	237

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs primarily for handicapped children.

[a] Percentages do not necessarily sum to 100 percent because programs may have multiple sponsors.

Sponsored nonprofit centers in urban and suburban areas are much more likely than similar centers in rural areas to be sponsored by a religious organization (42 versus 29 percent), and the proportion of *all* centers that are sponsored by a religious organization is twice as high in suburban areas as in rural areas (10 versus 5 percent) (Table III.7). In addition, nonprofit centers in lower-income areas are less likely to be sponsored by a religious group than are nonprofit centers in higher-income areas (32 versus 43 percent) (Table III.8).

Similar proportions of centers reported being sponsored by Head Start[15] (9 percent) or a public school or board of education (8 percent). About 16 percent of sponsored nonprofit centers are sponsored by state or local government agencies, while about 11 percent are sponsored by nongovernment community organizations. The most common partnerships for sponsoring early education and care programs are with these types of sponsors. Head Start and public schools are most likely to sponsor programs jointly with government agencies and community organizations.

While the sponsorship of center-based early education and care programs by religious organizations is more prevalent in urban and suburban areas, the sponsorship of nonprofit centers by Head Start is more prevalent in rural areas. Nonprofit centers in rural areas are twice as likely as centers in urban and suburban areas to be sponsored by Head Start (37 percent of sponsored nonprofit centers in rural areas versus 20 and 21 percent of sponsored nonprofit centers in urban and suburban areas, respectively) (Table III.7).

The sponsorship of nonprofit centers by Head Start is also more prevalent in lower-income areas,[16] where 19 percent of sponsored nonprofit centers are sponsored by Head Start, compared with 14 percent of sponsored nonprofit centers in higher-income areas (Table III.8). Excluding

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[15] The Head Start programs surveyed do not include home-based Head Start programs. Although Head Start centers were sampled from lists of programs compiled by calling Head Start regional offices to obtain current lists of grantees and delegate agencies and calling grantees and delegate agencies to obtain current lists of centers, comparisons with the numbers of programs and spaces maintained by Head Start suggest that Head Start centers may have been undercounted in the survey.

[16] Lower-income areas are defined as counties in which more than 10 percent of the population live in households whose incomes are below the poverty level.

TABLE III.7

SPONSORSHIP OF NONPROFIT CENTERS SERVING 3- TO 5-YEAR-OLD CHILDREN BY URBANICITY

	Urban	Suburban	Rural
Percentage of Nonprofit Centers That Are Sponsored	60 %	55 %	55 %
Among Nonprofit Centers That Are Sponsored, the Percentage That Are Sponsored by:[a]			
Head Start	20	21	37
Public schools	30	27	39
Religious organizations	42	43	29
State or local government	16	16	16
Nongovernment community organizations	12	9	11
College or university	4	5	4
Private school	2	1	2
Social service agency	4	4	3
Other	3	4	2
Sample Size	609	368	267

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs primarily for handicapped children.

[a] Percentages do not necessarily sum to 100 percent because programs may have multiple sponsors.

TABLE III.8

SPONSORSHIP OF NONPROFIT CENTERS SERVING 3- TO 5-YEAR-OLD CHILDREN BY COUNTY POVERTY

	County Poverty	
	10% or Less Below Poverty	More Than 10% Below Poverty
Percentage of Nonprofit Centers That Are Sponsored	57 %	59 %
Among Nonprofit Centers That Are Sponsored, the Percentage That Are Sponsored by:[a]		
Head Start	14	19
Public schools	14	16
Religious organizations	43	32
State or local government	10	18
Nongovernment community organizations	7	8
College or university	4	3
Private schools	2	1
Social service agencies	3	4
Other	12	14
Sample Size	810	434

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs primarily for handicapped children.

[a] Percentages do not necessarily sum to 100 percent because programs may have multiple sponsors.

public-school-based programs, sponsored nonprofit centers that serve low-income children[17] are more likely to be sponsored by Head Start (60 versus 6 percent), a state or local government (27 versus 8 percent), a community organization (23 versus 9 percent), or a social service organization (7 versus 3 percent), and much less likely to be sponsored by a religious organization (6 versus 66 percent) (see Table III.9). Information on whether parents were public assistance recipients was not available from public-school-based programs. However, most state-funded prekindergarten programs target and serve low-income children (Mitchell et al., 1989), and it is likely that public school sponsorship is relatively more prevalent among programs that serve low-income children.

Some public-school-based preschool programs serve educationally disadvantaged children and receive funding through Chapter 1 of the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988. Approximately one-quarter of nonprofit public school-sponsored programs are Chapter 1 programs. Public school programs funded by Chapter 1 are notably uncommon in the West (6 percent of public school programs, versus 32, 28, and 21 percent in the South, Midwest, and Northeast, respectively). Although public-school-based programs are evenly distributed among urban, suburban, and rural areas, those that are funded by Chapter 1 are much more common in rural and urban areas where disadvantaged children are more likely to live (32 and 27 percent of public-school-based programs, respectively) than in suburban areas (14 percent of public-school-based programs).

While most regulated home-based providers operate independently, approximately one-fourth are sponsored by a group that organizes family day care in their community. Sponsorship varies among regions, with providers in the Northeast most likely to have sponsors (32 percent versus 25 percent in the Midwest and 20 percent in the West and South).

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[17] These centers are those in which more than 25 percent of children were reported to have parents receiving public assistance.

TABLE III.9

SPONSORSHIP OF CENTERS SERVING 3- TO 5-YEAR-OLD CHILDREN BY THE PROPORTION OF CHILDREN WITH PARENTS RECEIVING PUBLIC ASSISTANCE

	Percentage of Children With Parents Receiving Public Assistance	
	Less Than 25%	25% or More
Percentage of Centers That Are:		
For-Profit	43 %	20 %
Nonprofit	57	80
Percentage of For-Profit Centers That Are:		
Independent	83	89
Part of a local chain	6	3
Part of a national chain	11	8
Percentage of Nonprofit Centers That Are Sponsored	48	68
Among Nonprofit Centers That Are Sponsored, the Percentage That Are Sponsored By:[a]		
Head Start	6	60
Religious organizations	66	6
State or local government	8	27
Nongovernment community organizations	9	23
College or university	6	4
Private schools	2	<1
Social service agencies	3	7
Other	3	3
Sample Size	98	388

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs primarily for handicapped children and public-school-based programs for which information on the public assistance status of children was not available.

[a] Percentages do not necessarily sum to 100 percent because programs may have multiple sponsors.

Location

The diversity of program sponsorship is reflected in the variety of places in which early education and care programs operate. Approximately 41 percent of centers are located in an independent structure. Other common locations include churches and synagogues (28 percent) and public schools (12 percent) (Table III.10). The remainder are in private schools, community centers, universities or colleges, work places, or other locations.

The vast majority of regulated home-based programs operate in single-family homes (95 percent), while a small percentage (5 percent) of regulated home-based providers care for children in an apartment or condominium. The predominance of regulated home-based care in single family dwellings probably reflects zoning laws or homeowners association rules that restrict the provision of family day care in apartments and condominiums, as well as other space requirements imposed by state regulations.

A substantial proportion of early education and care programs are not easily accessible by public transportation (Table III.10). Only 40 percent of centers are close to public transportation (that is, are located within 1 block of public transportation); an additional 12 percent are located within 6 blocks of public transportation. Regulated family day care providers are less accessible by public transportation--only 28 percent are located within 1 block of public transportation, while an additional 21 percent are located within 6 blocks of public transportation.

Program Capacity

The diversity of program auspices and locations is reflected in the variation in the size of programs. The average capacity of center-based early education and care programs is 60 children; however, center capacity ranges from fewer than 5 children to more than 100 children. One-quarter of centers have the capacity to serve more than 75 children, and one-quarter have the capacity to serve 25 or fewer children.

TABLE III.10

LOCATION OF EARLY EDUCATION AND CARE PROGRAMS

	Center-Based Programs[a]	Regulated Home-Based Programs
Type of Building in Which Program is Located:		
Independent structure	41 %	n.a.
Church or synagogue	28	n.a.
Public school	12	n.a.
Private school	5	n.a.
Community center	5	n.a.
University or college	2	n.a.
Workplace	1	n.a.
Commercial space	1	n.a.
House	3	95 %
Apartment or condominium	0	5
Other	2	n.a.
Distance From Public Transportation:		
Within 1 block	40	28
1 to 6 blocks	12	21
7 blocks to 1 mile	10	13
1 to 5 miles	8	12
More than 5 miles	4	8
No public transportation	26	18
Sample Size	1,813	583

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: n.a. means not applicable.

[a] Excludes programs that are primarily for handicapped children and programs that do not serve preschool children ages 3 to 5.

On average, centers in the South are larger than centers in the Northeast, Midwest, and West (69 versus 54, 50, and 58 children, respectively) (Table III.11). Not surprisingly, centers in urban and suburban areas are larger than centers in rural areas (69 and 66 versus 38 children).

One reason that centers in the South tend to be larger is that they are more likely to be for-profit centers that are part of national chains and located primarily in urban areas. Centers that are part of a for-profit chain are substantially larger on average than other types of centers (Table III.11). The average capacity of a for-profit chain program is 105 children, compared with 74 children in nonprofit centers sponsored by religious organizations, 60 children in independent nonprofit centers, 57 children in independent for-profit centers, and 56 children in other sponsored nonprofit centers. Head Start and public-school-based programs are smaller on average than other programs (with average capacities of 48 and 53 children, respectively).

Regulated family day care providers have the capacity to care for 7 children on average (Table III.11). Capacity in regulated home-based settings ranges from 1 to 20 children. Approximately 70 percent of family day care providers are licensed to care for 6 to 10 children, while 15 percent are licensed to care for 5 or fewer children, and 15 percent are licensed to serve more than 10 children.

Operating Schedules

Nearly all regulated family day care providers operate full-time (94 percent). However, only about two-thirds (69 percent) of centers offer full-time care (Figure III.4). On average, centers offer care for 46 hours per week, while regulated family day care providers offer care for an average of 55 hours per week. The median hours of care offered per week are more similar--53 and 55 hours per week, respectively.

Few formal programs provide care during nonstandard hours (evenings or weekends). Centers are relatively more likely than regulated family day care providers to provide care on weekends (10 versus 6 percent), while regulated family day care providers are relatively more likely to provide care during evenings (13 versus 3 percent).

TABLE III.11

LICENSED CAPACITY OF EARLY EDUCATION AND CARE PROGRAMS

	Center-Based Programs[a]		Regulated Home-Based Programs	
	Mean	Standard Error	Mean	Standard Error
Average Licensed Capacity in:				
United States	60	(2)	7	(0.1)
Northeast	54	(3)	6	(0.3)
South	69	(2)	7	(0.2)
Midwest	50	(3)	8	(0.2)
West	58	(3)	8	(0.2)
Urban areas	69	(2)	8	(0.2)
Suburban areas	66	(2)	7	(0.2)
Rural areas	38	(3)	7	(0.2)
For-profit chain programs	105	(6)	n.a.	
Independent for-profit programs	57	(3)	n.a.	
Head Start programs	48	(4)	n.a.	
Public-school-based programs	53	(4)	n.a.	
Nonprofit religious-sponsored programs	74	(4)	n.a.	
Other sponsored nonprofit programs	56	(5)	n.a.	
Independent nonprofit programs	60	(3)	n.a.	
Sample Size	1,902		583	

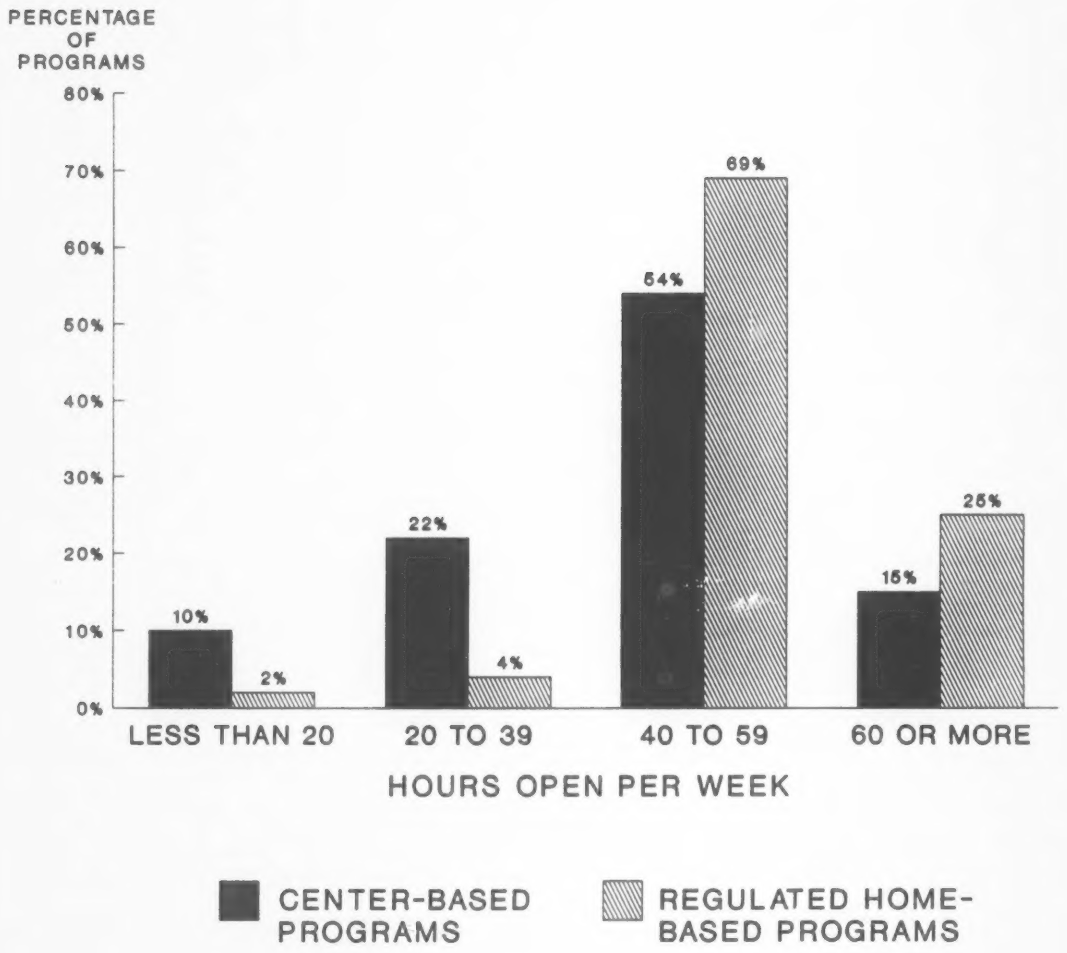
SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: n.a. means not applicable.

[a] Excludes unlicensed center-based programs for which no external requirements on capacity are imposed.

FIGURE III.4

WEEKLY OPERATING SCHEDULES OF EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

The majority of both center-based and home-based programs operate at least 50 weeks per year (Figure III.5). However, a substantial proportion of centers provide care for considerably less than the full year--24 percent offer care for less than 10 months. Only 2 percent of regulated family day care providers operate for less than 10 months per year.

Financial Characteristics

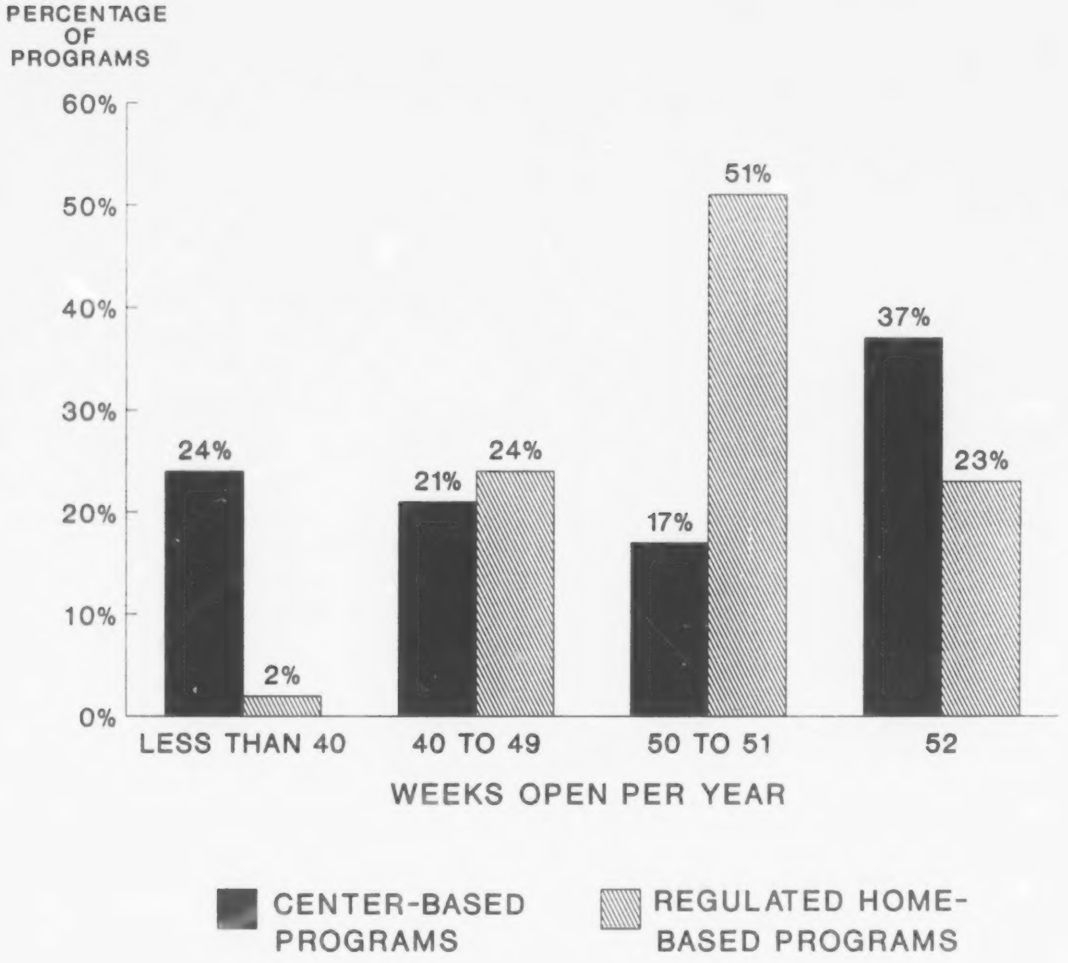
Due to the resources that would be required and the broad focus of the study, the PCS Study did not attempt to obtain detailed information on the financial characteristics of early education and care programs. Nevertheless, summary information was collected from centers on sources of income and the allocation of their budgets to major spending categories, and information was collected from home-based providers on their income from child care.

On average, centers receive more than 70 percent of their income from parental fees (Table III.12). Most of their remaining income comes from government agencies. Centers in suburban areas receive a higher percentage of their income from parental fees (79 percent versus 69 and 67 percent in urban and rural areas, respectively). Centers in the South and the West receive a slightly higher percentage of their income from parental fees (74 and 75 percent, respectively, versus 65 and 70 percent in the Northeast and Midwest, respectively).

The percentage of income from parental fees varies considerably by type of program. For-profit centers, including both independent centers and centers that are part of national or local chains, receive more than 90 percent of their income from parental fees (Figure III.6). Nonprofit centers sponsored by a religious organization and independent nonprofit centers receive slightly less of their income from parental fees (89 and 81 percent, respectively). By design, centers sponsored by Head Start receive virtually none of their income from parental fees (Figure III.7). Similarly, public-school-based programs receive an average of only 17 percent of their income from parental fees. Other sponsored nonprofit centers receive approximately half of their income from parental fees.

FIGURE III.5

YEARLY OPERATING SCHEDULES OF EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

TABLE III.12

INCOME AND EXPENDITURES BY EARLY EDUCATION AND CARE PROGRAMS

	Center-Based Programs[a]		Regulated Home-Based Programs	
	Mean	Standard Error	Mean	Standard Error
Expenditures				
Percentage of Program's Total Budget That is Spent on Salaries	62 %	(1)	n.a.	
Income				
Average Percentage of Income Received From:				
Parent fees	72	(1)	n.a.	
Government agencies	22	(0.2)	n.a.	
Community organizations	1	(0.2)	n.a.	
Religious organizations	1	(0.2)	n.a.	
Cash donations or fund-raising	2	(0.2)	n.a.	
Other sources	2	(2)	n.a.	
Percentage of Programs That Receive Significant In-Kind Donations	32	(2)	n.a.	
Percentage of Programs That:				
Lost money in 1989	23	(1)	n.a.	
Broke even in 1989	51	(2)	n.a.	
Made money in 1989	26	(2)	n.a.	
Average Annual Income From Family Day Care	n.a.		$10,161	($506)
Average Percentage of Income From Family Day Care	n.a.		35	(2)
Sample Size	1,803		539	

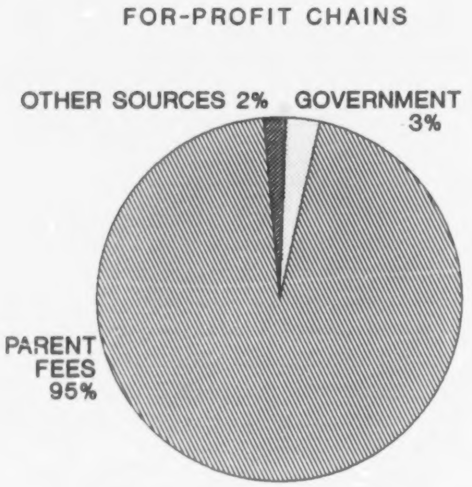
SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

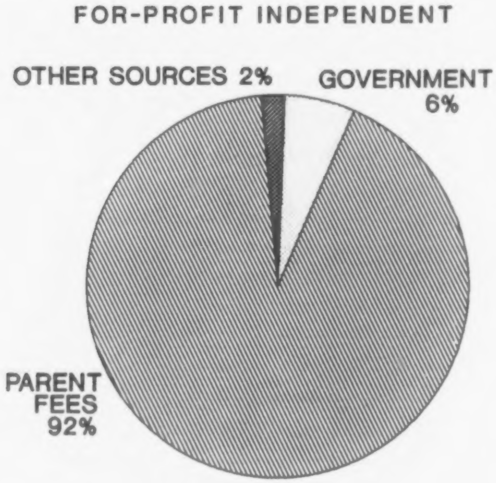
NOTE: n.a. means not applicable.

[a] Excluding programs primarily for handicapped children and programs that do not serve preschool children age 3 to 5.

FIGURE III.6

SOURCES OF INCOME IN FOR-PROFIT CENTERS

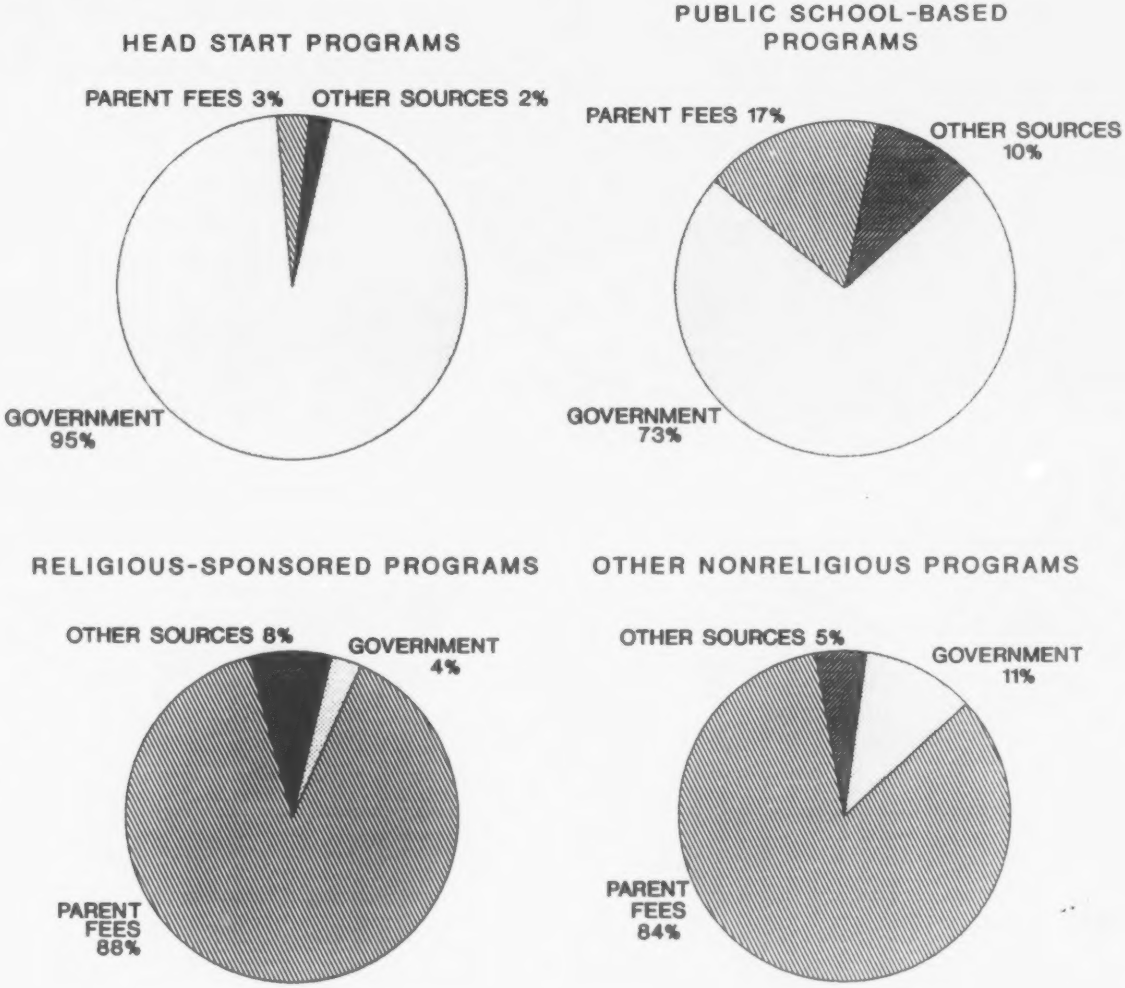




SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

FIGURE III.7

SOURCES OF INCOME IN CENTER-BASED PROGRAMS BY PROGRAM TYPE



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

In addition to money income, approximately one-third of centers receive significant in-kind donations (32 percent)--most commonly space (15 percent), supplies (11 percent), food (10 percent), equipment (9 percent), and toys (9 percent). The percentage of centers that reported receiving in-kind contributions ranged from 5 percent of for-profit programs associated with chains to 81 percent of all Head Start centers. Less than half of religious-sponsored programs (40 percent) and other sponsored nonprofit centers (47 percent) reported receiving in-kind donations, compared with 35 percent of independent nonprofit centers and 13 percent of independent for-profit centers.

The largest item in the budget of many centers is staff salaries and benefits (Table III.12). Centers spent an average of 62 percent of their total budget on salaries and benefits for all staff in the year prior to the survey. The percentage of the budget spent on salaries and benefits differs significantly among different types of centers. For-profit centers, including both chains and independent centers, spent a much smaller proportion of their budget on salaries and benefits (47 and 53 percent) than did nonprofit centers (63 to 71 percent). The smaller proportion of the budget spent on salaries and benefits by for-profit centers reflects in part the lower wages they pay teachers (see later section on teacher wages and benefits in Chapter III) and their lower likelihood of receiving in-kind contributions such as rent.

Approximately half of centers reported breaking even in the year prior to the survey, while one-quarter lost money and one-quarter made money last year (Table III.12). Not surprisingly, substantially more for-profit centers reported making money last year. Among for-profit chains, 60 percent reported making a profit, 19 percent broke even, and 21 percent reported losing money. Among independent for-profit centers, only 48 percent reported making a profit, 28 percent broke even, and 24 percent lost money. Only small proportions of nonprofit centers reported making money in the year prior to the survey (13 percent of nonprofit centers sponsored by religious organizations and 12 percent of other nonprofit centers).

The average annual revenue received from child care by regulated family day care providers was approximately $10,000. Since data were not collected about the total costs involved in providing family day care, no estimates of net income can be made. The revenues of regulated home-based providers from child care vary widely, ranging from nothing to $76,000 per year. Half of all regulated home-based providers take in $8,800 per year or less. The average annual household earnings from all sources reported by regulated family day care providers is $33,414 and ranges from $1,450 to $111,000.

ADMISSION POLICIES AND RECRUITMENT STRATEGIES

In order for the demand for early education and care to be met by the available supply, parents who require care must have access to the available care. Access to the available supply of care may be restricted by a lack of information about available care or by admission policies that deny care to some children and families. Thus, the admission policies implemented by early education and care programs and the methods used by programs to advertise vacancies are important intervening factors affecting the adequacy of the current supply of care for meeting the needs of children and families.

Admission Policies

A critical aspect of the supply of early education and care programs is the accessibility of the programs to families and children. If admission to some programs is restricted to certain groups of families or children, then the supply of care available to the excluded groups of families and children is more limited than would be indicated by an examination of the total supply of care. Admission policies for four groups of children were specifically considered in the PCS Study: children who do not speak English, children with diagnosed handicaps, children who are not toilet-trained, and children whose fees are paid by a public agency.

Centers are much more likely than home-based programs to accept non-English-speaking or children with disabilities. A large majority of centers accept non-English-speaking children (86 percent), but less than one-third of regulated family day care providers accept such children (Figure III.8). Many (44 percent) of the centers that accept non-English-speaking children have bilingual staff to help children who lack English language skills.

Approximately three-fourths of centers, compared with only 39 percent of regulated family day care providers, reported that they accept or would accept children with diagnosed handicaps (Figure III.8). Approximately half of centers reported that they accept children with disabilities, 18 percent reported that they make decisions on a case-by-case basis, and 7 percent reported that they do not currently care for disabled children but that they would be willing to accept them.

Home-based programs are more likely than centers to accept children who are not toilet-trained. Only slightly more than half of centers accept children who are not toilet-trained (that is, infants and toddlers), while nearly all regulated family day care providers (96 percent) accept children who are not toilet-trained (Figure III.8).

The vast majority of regulated home-based programs accept children whose fees are paid by a public agency[18] (86 percent), although only a small percentage are currently caring for any subsidized children (18 percent). Directors of centers were not asked directly about whether they accept children whose fees are paid by a public agency. However, approximately one-third of non-public-school-based programs currently care for some children whose fees are paid by a public agency. If all public-school-based programs are assumed to serve some subsidized children (not an unreasonable assumption given the fact that most public-school-based programs target and serve low-income children and the small percentage of their budgets that come from parent fees), then an estimated 40 percent of all centers currently serve subsidized children. Some additional programs may accept subsidized children but are not currently caring for any subsidized children.

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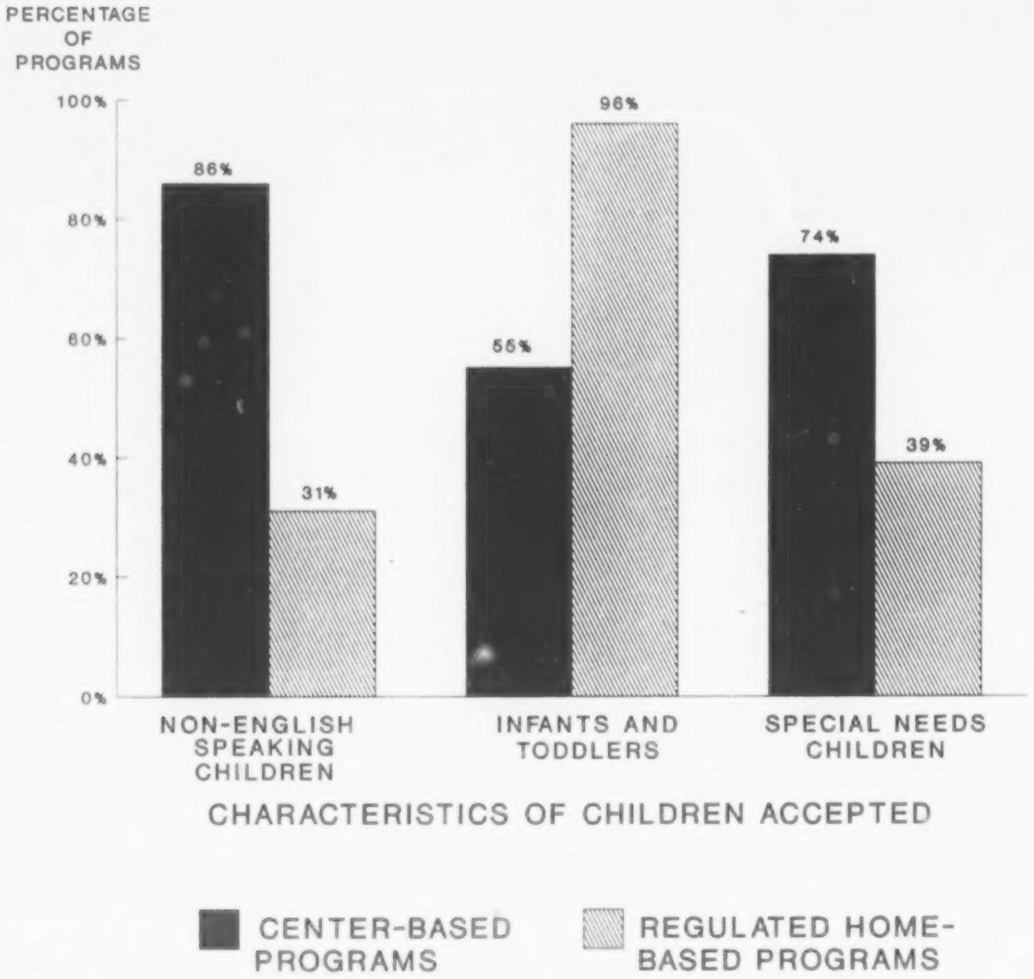
[18] Provider subsidies are available through Head Start, the Social Services Block Grant program, the Child and Adult Care Food Program, special education and rehabilitative programs, work-welfare programs, and school-age programs (Hayes et al., 1990).

FIGURE III.8

ADMISSION POLICIES OF EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

The extent to which centers serve children whose fees are paid by a public agency varies by region, size of program, type of program, and operating schedule (Table III.13). Non-public-school-based centers in the Northeast and West are more likely than centers in the South and Midwest to serve subsidized children (41 and 40 percent versus 34 and 32 percent, respectively). Small centers (30 or fewer children) are less likely than large centers to serve subsidized children (28 versus 39 percent). Among different types of centers, for-profit chains are most likely to serve some subsidized children (51 percent).[19] Approximately 38 percent of independent for-profit centers and non-religious-sponsored nonprofit centers serve subsidized children, while only 21 percent of nonprofit centers sponsored by a religious organization serve subsidized children. Finally, relatively few centers that are not full-day programs serve subsidized children; 43 percent of full-time programs but only 14 percent of part-day and 19 percent of part-week programs serve any subsidized children.

For non-English-speaking and non-toilet-trained children, full-time spaces in centers are considerably more accessible than are part-time spaces (including part-day and part-week spaces). Approximately 15 percent more full-time than part-time spaces are in programs that accept non-English-speaking children (Figure III.9). Similarly, about twice as many full-time as part-time spaces are in centers that accept infants and toddlers who are not toilet-trained.

Recruitment Strategies

Another important aspect of the supply of early education and care programs is the availability of information about the programs. Programs are not accessible unless information about them can be obtained with reasonable effort by parents who seek care. Moreover, depending on how programs advertise their services, information on the supply of care may be available more readily to some

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[19] Although for-profit chain programs are more likely to serve subsidized children, the percentage of children enrolled who are subsidized is smaller in for-profit chains than in most other types of centers.

TABLE III.13

EXTENT TO WHICH CENTERS CARE FOR SUBSIDIZED CHILDREN[a]

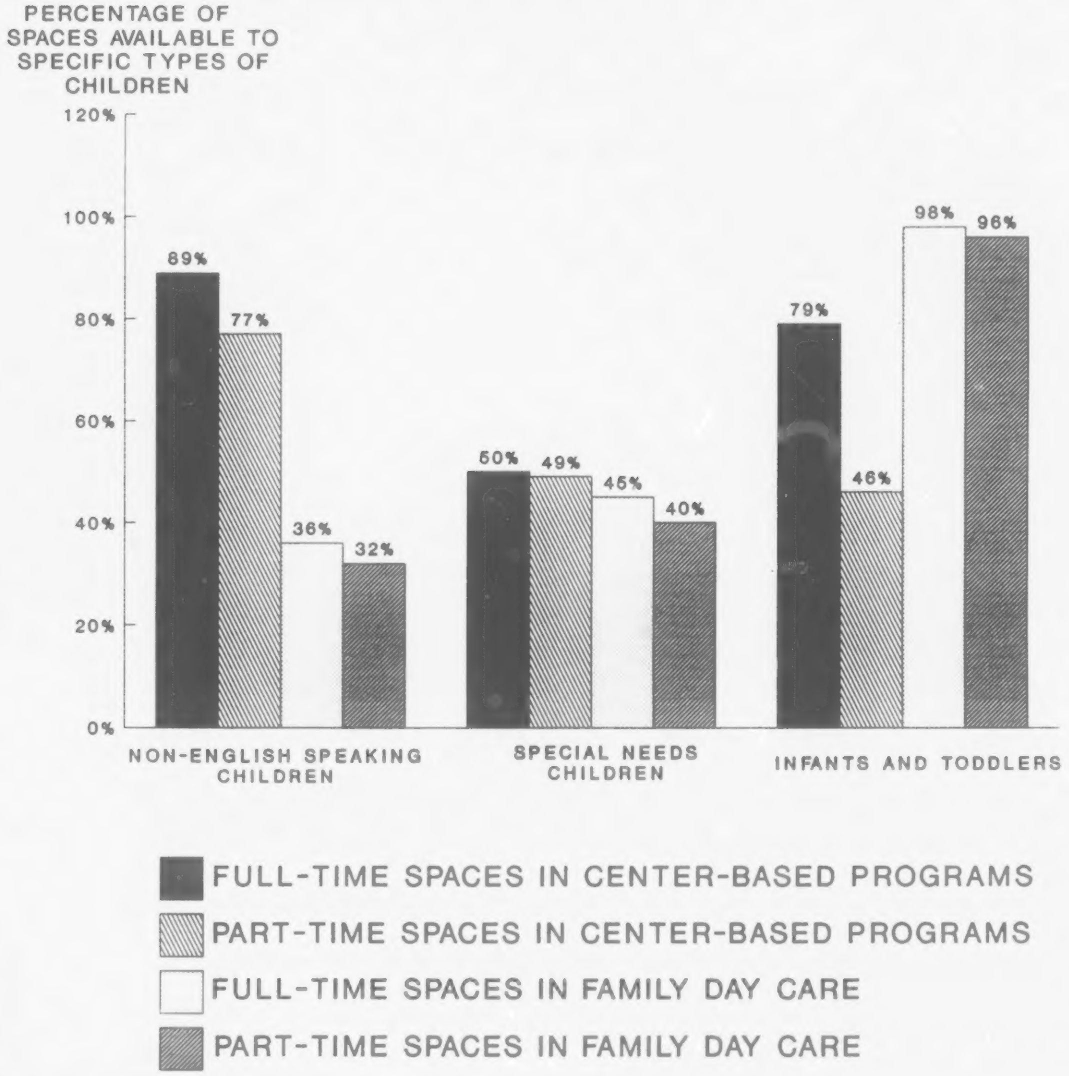
Type of Center	Programs That Care for Subsidized Children
All	36 %
Centers in:	
Northeast	41
South	34
Midwest	32
West	40
Urban areas	36
Suburban areas	36
Rural areas	36
Centers That Are:	
Small (30 or fewer children)	28
Medium (31 to 60 children)	39
Large (61 or more children)	39
For-profit chain programs	51
Independent for-profit programs	37
Religious-sponsored nonprofit programs	21
Other nonprofit programs	38
Full-time	43
Part-day	14
Part-week	19
Sample Size	1,612

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs that serve primarily handicapped children, public-school-based programs, and programs that do not serve preschool children ages 3 to 5.

FIGURE III.9

ACCESS TO FULL-TIME AND PART-TIME SPACES BY CERTAIN GROUPS OF CHILDREN



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

families than to others. Thus, in assessing the accessibility of early education and care, it is important to examine the extent to which and the manner in which providers advertise their programs and the methods they use to fill vacancies.

More than 40 percent of centers reported making special efforts to recruit and enroll specific types of children. Among centers that recruit specific types of children, 76 percent target children in specific age groups, 29 percent target low-income children, and small percentages of centers target children who live in certain areas, children in specific religious groups, and children of specific ethnic groups.

Nearly all formal programs actively take steps to fill vacancies (97 percent of centers and 94 percent of home-based programs). The most prevalent method for filling vacancies is to advertise informally by word of mouth and get referrals from friends and relatives (Figure III.10). Approximately 60 percent of both centers and regulated family day care providers reported finding children to care for through word-of-mouth referrals. The majority of centers also advertise formally in newspapers, yellow pages, or other media, while an estimated 31 percent of regulated family day care providers advertise formally.

Although two-thirds of centers reported that they have a waiting list, only one-third reported filling vacancies from a waiting list.[20] In addition, one-quarter of centers distribute flyers, and 9 percent post vacancies on bulletin boards or signs.

Regulated home-based programs are more likely than centers to fill vacancies through referrals. Approximately one-quarter of home-based programs fill vacancies through referrals from community agencies (26 percent), while only 15 percent of centers obtain referrals from community agencies. About two-thirds of all centers and four-fifths of regulated family day care providers are listed with a child care resource and referral network in their community. Centers in rural areas and in the South and Midwest are less likely than centers in other areas to be listed with a resource and referral

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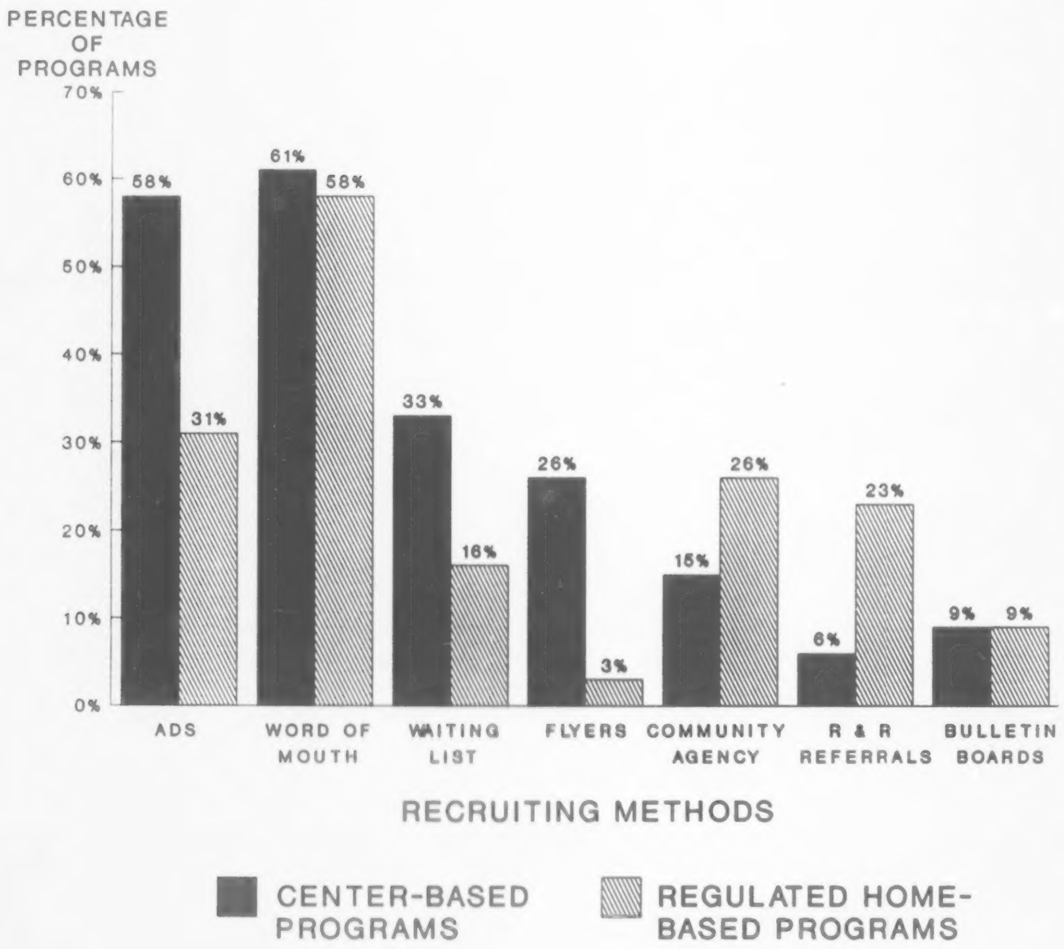
[20] This finding suggests that waiting lists are not a good indicator of excess demand.

FIGURE III.10

METHODS USED BY EARLY EDUCATION AND CARE PROGRAMS TO FILL A VACANCY



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

network, probably because they are less likely to be located in areas served by resource and referral networks. Based on information included in the *National Directory of Child Care Resource and Referral Agencies* (California Child Care Resource and Referral Network, 1987), referral agencies are less prevalent in the South and Midwest. Despite the high proportions of programs listed with resource and referral networks, only 6 percent of centers and 23 percent of regulated home-based programs reported filling vacancies with referrals from resource and referral networks.

The average length of time required to fill a vacancy is 8 days for centers and 25 days for regulated family day care providers. These differences reflect the less prevalent use of formal methods by home-based providers to fill vacancies and the relatively more abundant supply of regulated family day care suggested by lower utilization rates.

ENROLLMENT AND VACANCIES

The result of the admission policies and recruitment strategies of early education and care programs is the enrollment of children with particular characteristics. Depending on the restrictiveness of admission policies, the effectiveness of recruiting methods, the level of demand for care in local markets, and the levels of turnover in enrollment, early education and care programs may be fully enrolled or have vacancies. The following subsections describe the levels and characteristics of enrollment in center-based and regulated home-based early education and care programs, assess the extent to which vacancies exist in these programs, and examine levels of turnover in enrollment.

Enrollment

Approximately 5.7 million children were enrolled in formal education and care programs[21] in the United States at the beginning of 1990 (Table III.14). Of these children, approximately 3.9

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[21] These programs exclude programs primarily for handicapped children, exclusively drop-in programs, and unlicensed school-age-only programs.

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TABLE III.14

ENROLLMENT IN EARLY EDUCATION AND CHILD CARE PROGRAMS, 1990

	Center-Based Programs[a] (000's)		Regulated Home-Based Programs (000's)	
	Total	Standard Error	Total	Standard Error
Total Enrollment	4,994	(228)	701	(21)
Preschool children	3,940	(113)	595	(19)
School-age children	1,054	(45)	106	(10)

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Excludes enrollment in programs primarily for handicapped children and unlicensed programs serving only school-age children.

million were children younger than school age who were enrolled in centers, and 595,000 were children younger than school age who were cared for in regulated family day care settings. An additional 1.1 million school-age children were enrolled in centers that also serve younger children, and 106,000 school-age children were cared for in regulated family day care settings.

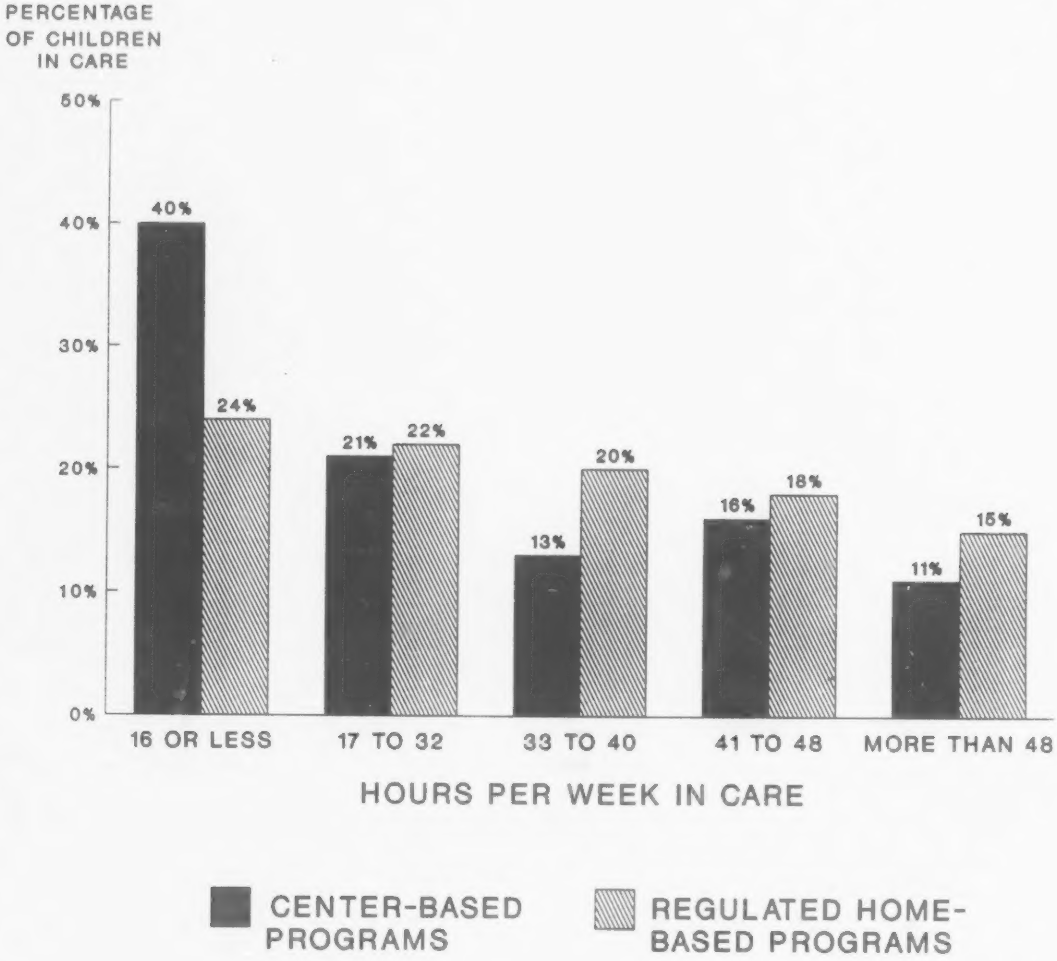
According to Survey of Income and Program Participation data for 1986-87 (U.S. Bureau of the Census, 1990), approximately 9.5 million children younger than age 5 had mothers who were employed outside the home. Of these children, 24.4 percent were cared for in center-based settings *as their primary arrangement* (2.3 million children). This number of children is lower than the estimate of children younger than 5 years old in care from the PCS surveys (3.3 million children) because (1) it refers only to children in care to enable their mothers to work, whereas enrollment in centers includes not only the children of working mothers but also the children of nonworking mothers who want their children to have early education experiences; (2) it refers only to primary arrangements, whereas the enrollment count includes all arrangements; and (3) it refers to a period three years before the PCS surveys. The large difference in estimates from the two sources suggests that substantial numbers of children of mothers who do not work outside the home are enrolled in center-based early education and care programs.

Full-Time and Part-Time Enrollment

Approximately one-third (38 percent) of children enrolled in centers and one-half (54 percent) of children enrolled in regulated family day care programs are enrolled full-time (more than 35 hours per week). Approximately 40 percent of children enrolled in centers are enrolled for 16 or fewer hours per week, compared with 24 percent of children enrolled in regulated family day care programs (Figure III.11). School-age children and 3- and 4-year-old children are more likely than children in other age groups to be enrolled in centers for 16 and fewer hours per week (Figure III.12). The

FIGURE III.11

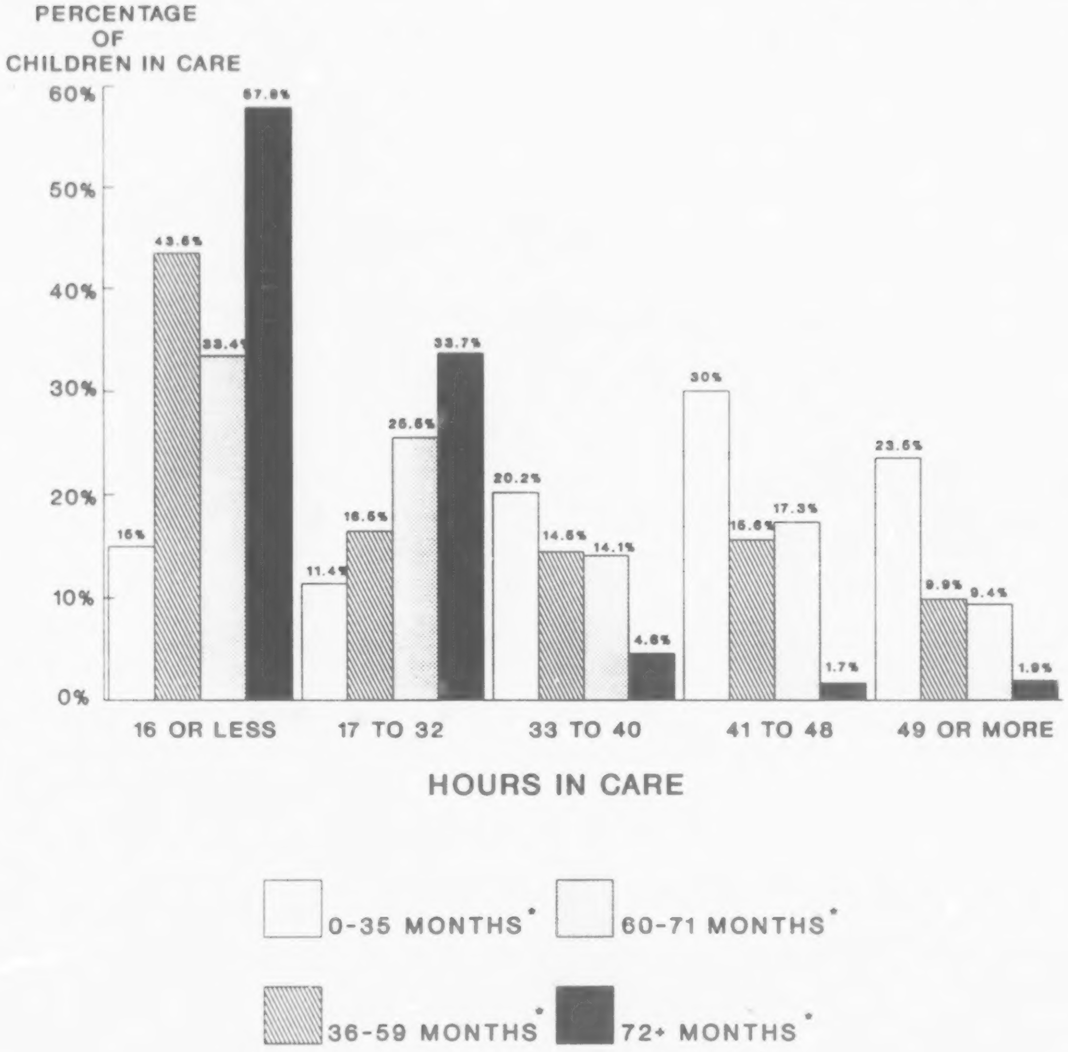
CHILDREN ENROLLED BY HOURS IN EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

FIGURE III.12

CHILDREN ENROLLED IN CENTERS BY AGE AND HOURS ENROLLED



*BASED ON THE AVERAGE AGE OF CHILDREN IN EACH GROUP, FOR WHICH HOURS IN CARE WERE OBTAINED.

SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH INC., 1990) proportionately higher part-time enrollment of 3- and 4-year-old children reflects enrollment in part-time programs such as Head Start, as well as the greater use of part-time center-based care by nonworking mothers of 3- and 4-year-old children.

Average Enrollment

Enrollment in the average center-based early education and care program is very similar in capacity to the average center-based program. The average center has the capacity to care for 60 children and enrolls 62 children (Table III.15). However, enrollments vary considerably across centers, ranging from fewer than 10 children to more than 100 children. More than half of all centers enroll fewer than 50 children (Figure III.13).

The average enrollment in centers is larger in the West, where the average center enrolls 74 children, compared with the other regions, where the average program enrolls approximately 60 children (Table III.15). Average enrollment is also larger in urban and suburban areas than in rural areas (72 and 66 children versus 42 children).

Just as the capacity of for-profit centers that are part of local or national chains is greater than the capacity of other centers, the average enrollment in for-profit chain centers is larger than the average enrollment in other types of centers. For-profit chain centers enroll an average of 91 children, while nonprofit centers sponsored by a religious organization enroll an average of 73 children, independent for-profit centers enroll an average of 67 children, public-school-based centers enroll an average of 58 children and other sponsored and independent nonprofit centers enroll an average of 58 and 63 children, respectively. The average enrollment in Head Start is smaller than the average enrollment in other types of centers (50 children).

Full-time programs are larger than part-day and part-week programs.[22] The average enrollment in full-time programs is 68 children, while part-day programs enroll an average of 57 children, and

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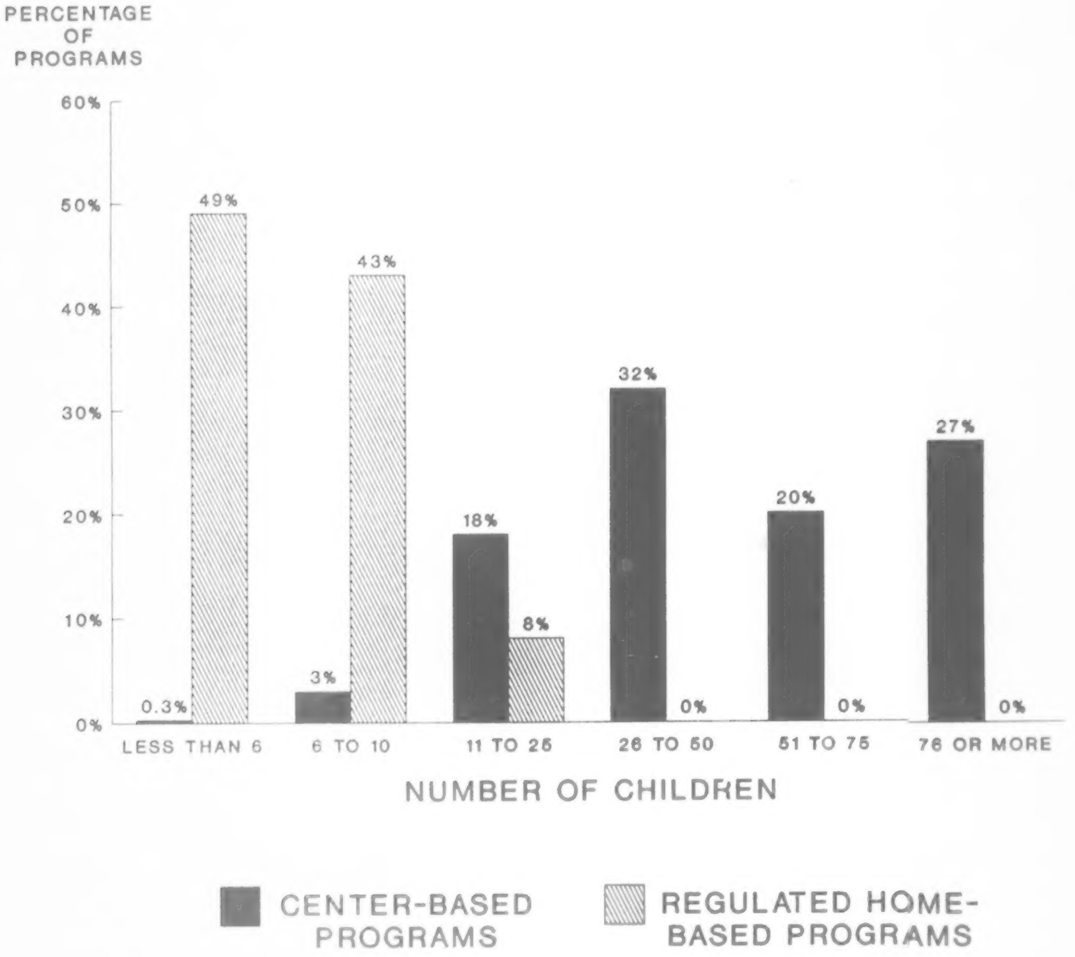
[22] Full-time programs are open 5 days per week and at least 7 hours per day. Part-day programs operate 5 days per week and less than 7 hours per day. Part-week programs operate fewer than 5 days per week.

FIGURE III.13

DISTRIBUTION OF EARLY EDUCATION AND CARE PROGRAMS BY NUMBER OF CHILDREN ENROLLED



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

TABLE III.15

ENROLLMENT IN EARLY EDUCATION AND CARE PROGRAMS

	Average Enrollment in:			
	Center-Based Programs[a]		Regulated Home-Based Programs	
Type of Program	Mean	Standard Error	Mean	Standard Error
All Programs	62	(3)	6	(0.2)
Programs in:				
Northeast	58	(5)	4.4	(0.4)
South	60	(4)	5.6	(0.3)
Midwest	60	(5)	6.9	(0.3)
West	74	(5)	6.0	(0.3)
Urban areas	72	(4)	5.8	(0.2)
Suburban areas	66	(4)	5.9	(0.3)
Rural areas	42	(5)	6.3	(0.3)
For-Profit Chain Programs	91	(10)	n.a.	
Independent For-Profit Programs	67	(5)	n.a.	
Head Start Programs	50	(7)	n.a.	
Public-School-Based Programs	58	(6)	n.a.	
Religious-Sponsored Nonprofit Programs	73	(7)	n.a.	
Other Sponsored Nonprofit Programs	58	(9)	n.a.	
Independent Nonprofit Programs	63	(5)		
Full-Time[b] Programs	68	(3)	6.3	(0.2)
Part-Time[b] Programs	57	(5)	5.6	(0.2)
Part-Week[b] Programs	35	(7)	3.7	(0.4)

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: n.a. means not applicable.

[a] Excluding programs primarily for handicapped children.

[b] Full-time programs are open 5 days per week and at least 7 hours per day. Part-day programs operate 5 days per week and less than 7 hours per day. Part-week programs operate fewer than 5 days per week.

part-week programs enroll an average of only 35 children.

By definition, regulated home-based programs have much smaller enrollments than centers. The average regulated family day care provider has 6 children enrolled (not including the provider's own children). Approximately half of all regulated family day care providers care for fewer than 6 children, and most of the other providers care for between 6 and 10 children. Only 8 percent of regulated home-based providers care for more than 10 children (Figure III.13).

Regulated home-based providers who provide full-time or part-day care enroll more children than providers who provide part-week care. Full-time and part-day providers care for an average of 6 children, compared with an average of only 4 children who are cared for by part-week providers (Table III.15).

The Characteristics of Children Enrolled

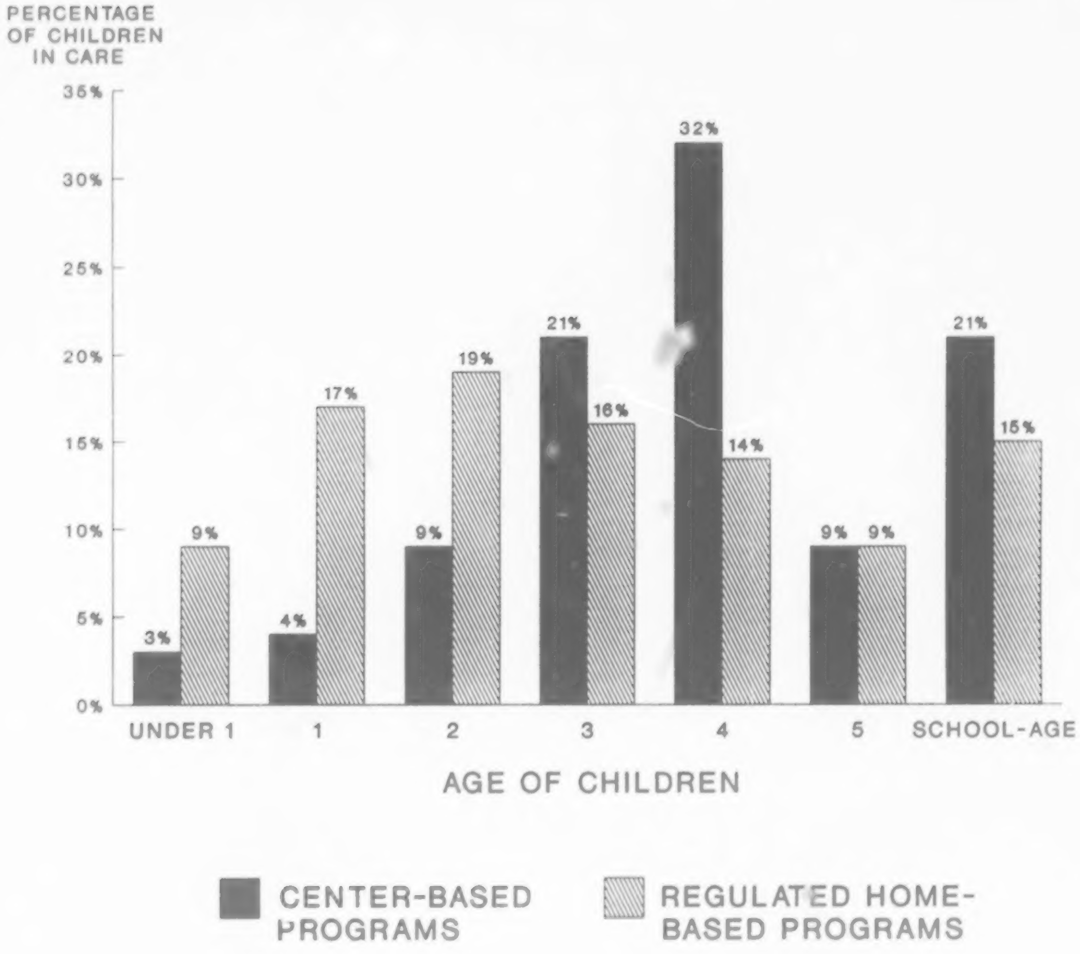
The characteristics of children enrolled in various early education and care settings reflect the outcomes of both the decisions of suppliers that determine the characteristics of care offered and the choices of parents for different types of care for their children. Among the key characteristics of children that describe the intersection of supply and demand are their age, ethnicity, and poverty status.

Enrollment by Age. The age distribution of enrollment differs between center-based and regulated home-based settings. Enrollment in centers is concentrated more among the 3- and 4-year-old age groups (53 percent versus 30 percent in center-based and home-based settings, respectively) and concentrated less in the infant and toddler age groups (16 versus 45 percent) (Figure III.14). Children 5 years and older constitute similar proportions of total enrollment (30 and 24 percent).

Ethnic Composition of Enrollment. Among children enrolled in centers, black children are overrepresented and Hispanic children are underrepresented relative to the population of children younger than age 5. However, the overall proportion of children in centers who are minorities reflects the ethnic composition of the population of children. Proportionately more children who are

FIGURE III.14

AGE DISTRIBUTION OF CHILDREN IN EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

enrolled in centers are black and Hispanic relative to children who are enrolled in regulated family day care programs. Approximately 19 percent of children in center-based settings are black and 7 percent are Hispanic, compared with 11 percent and 5 percent of children in home-based settings (Figure III.15).

Relative to the population, minority children are underrepresented in regulated home-based settings. While 28 percent of all children are members of minority groups (U.S. Bureau of the Census, 1983), only 19 percent of children who are cared for in regulated home-based settings are members of minority groups. Both black and Hispanic children are underrepresented in regulated family day care.

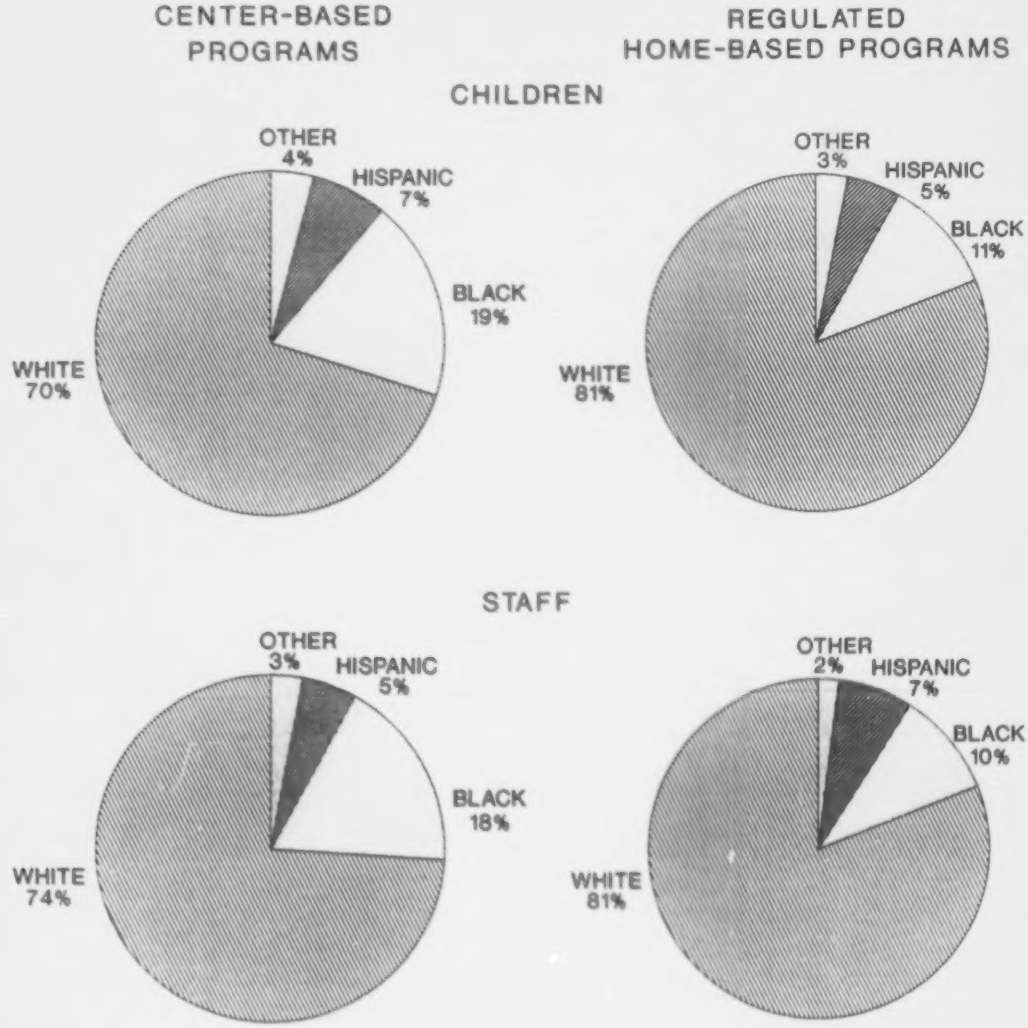
The ethnic composition of enrollment in centers varies by region, urbanicity, and type of program. Proportionately more children who are enrolled in centers in the South are black (31 percent). Proportionately more children who are enrolled in centers in the West are Hispanic (18 percent). These regional differences reflect regional differences in the ethnic composition of the population. Children enrolled in urban centers are nearly twice as likely as children enrolled in centers in suburban or rural areas to be black (26 versus 14 percent).

Compared with other centers, substantially higher proportions of children who are enrolled in Head Start and public-school-based programs are black or Hispanic. Approximately one-third of children in Head Start and public-school-based programs are black (37 and 34 percent, respectively), while 16 and 12 percent are Hispanic, respectively.

Enrollment by Public Assistance Status. Based on estimates by center directors and regulated family day care providers, approximately 17 percent of children who are enrolled in centers and 5 percent of children cared for in regulated family day care settings have parents who receive public assistance (Table III.16). A much higher proportion of children who attend nonprofit centers not sponsored by religious organizations come from families who receive public assistance. More than 30 percent of the children who attend these nonprofit centers are poor, compared with fewer than

FIGURE III.15

ETHNIC COMPOSITION OF CHILDREN AND STAFF IN EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

TABLE III.16

ENROLLMENT OF CHILDREN FROM FAMILIES RECEIVING PUBLIC ASSISTANCE IN EARLY EDUCATION AND CARE PROGRAMS

Type of Program	Average Percentage of Children in Centers[a] Who Are On Public Assistance	Percentage of Children in Home-Based Programs Who Are On Public Assistance
All Programs	17 %	5 %
Programs in:		
Northeast	21	14
South	15	2
Midwest	17	7
West	16	4
Urban areas	18	5
Suburban areas	14	4
Rural areas	19	8
For-Profit Chain Programs	6	n.a.
Independent For-Profit Programs	8	n.a.
Head Start Programs	68	n.a.
Religious-Sponsored Nonprofit Programs	5	n.a.
Other Sponsored Nonprofit Programs	30	n.a.
Independent Nonprofit Programs	10	n.a.
Sample Size	1,372	527

SOURCE: Profile of Child Care Settings (Mathematica Policy Research, Inc., 1990).

[a] Excluding programs primarily for handicapped children, programs that do not serve preschool children ages 3 to 5, and public-school-based programs.

10 percent of children in other types of programs. Head Start programs care for the highest proportions of children whose parents receive public assistance. On average, program directors estimated that approximately 68 percent of children who attend Head Start programs come from families on public assistance.[23]

Vacancies

The difference between licensed capacity and enrollment is at best only a crude measure of the potential number of vacancies in early education and care programs. In order to obtain a more accurate picture of the number of vacancies actually available in early education and care programs, the surveys asked program directors and home-based providers how many more children they would be able and willing to accept.[24] For centers, this information on vacancies was collected for each separate group of children. For family day care programs, information was collected on part-time and full-time vacancies.

The average center has 4 full-time vacancies, 3 part-time vacancies, and 2 part-week vacancies. However, vacancies are not spread evenly among all centers but are concentrated in fewer than half of existing centers. Two-thirds to three-fourths of all centers reported having no vacancies. Two-thirds of centers have no vacancies in groups that are full-time or part-time, while three-fourths of programs have no vacancies in groups that attend the program less than 5 days per week.

The average regulated family day care provider has 1 full-time vacancy and 1 part-time vacancy. Vacancies in regulated home-based settings are also concentrated in fewer than half of all regulated family day care homes. Regulated providers with vacancies have an average of 3 unfilled spaces available for full-time children and 2 unfilled spaces available for part-time children. Over half of all regulated family day care providers reported being unable or unwilling to accept more children full-time, and a similar proportion reported being unable or unwilling to care for more children part-time.

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[23] Head Start eligibility requirements specify that at least 90 percent of children enrolled be from low-income families. Indications are that these guidelines are being met, even though only about half of all Head Start families are public assistance recipients (Zill and Wolpow, 1990).

[24] For the vast majority of both center-based and home-based early education and care programs, the difference between licensed capacity and enrollment (in full-time-equivalent children) exceeds the number of vacancies reported by program directors and home-based providers. Thus, the total licensed capacity in center-based and home-based programs is greater than actual number of children providers are willing to care for.

Only small proportions of the vacancies in centers are available for infants or toddlers (Figure III.16).[25] Less than 10 percent of vacancies could be filled by infants younger than 1 year old. Less than 16 percent of vacancies are available for 1-year-old children, and less than 30 percent of vacancies could be filled by 2-year-old children. Part-time centers have virtually no vacancies for infants or toddlers.

Much higher proportions of the total number of vacancies could be filled by older children, especially preschool children between 3 and 5 years old. Between one-fourth and two-thirds of all vacancies could be filled with children in these age groups.

Turnover in Enrollment

One reason that some unfilled child care spaces are always likely to exist is the turnover of children in care. The turnover of children, which is calculated as the total number of children who left the provider during the first quarter in 1989[26] divided by enrollment, also indicates the stability of care arrangements for children. The overall rate of child turnover in centers was about 4 percent over the three-month reference period. Turnover rates in individual centers ranged from 0 to 78 percent. The overall rate of child turnover in regulated home-based settings during the first quarter of 1989 was about 15 percent, which is equivalent to about one child per provider, on average. Turnover rates among individual home-based providers range from 0 to more than 100 percent.

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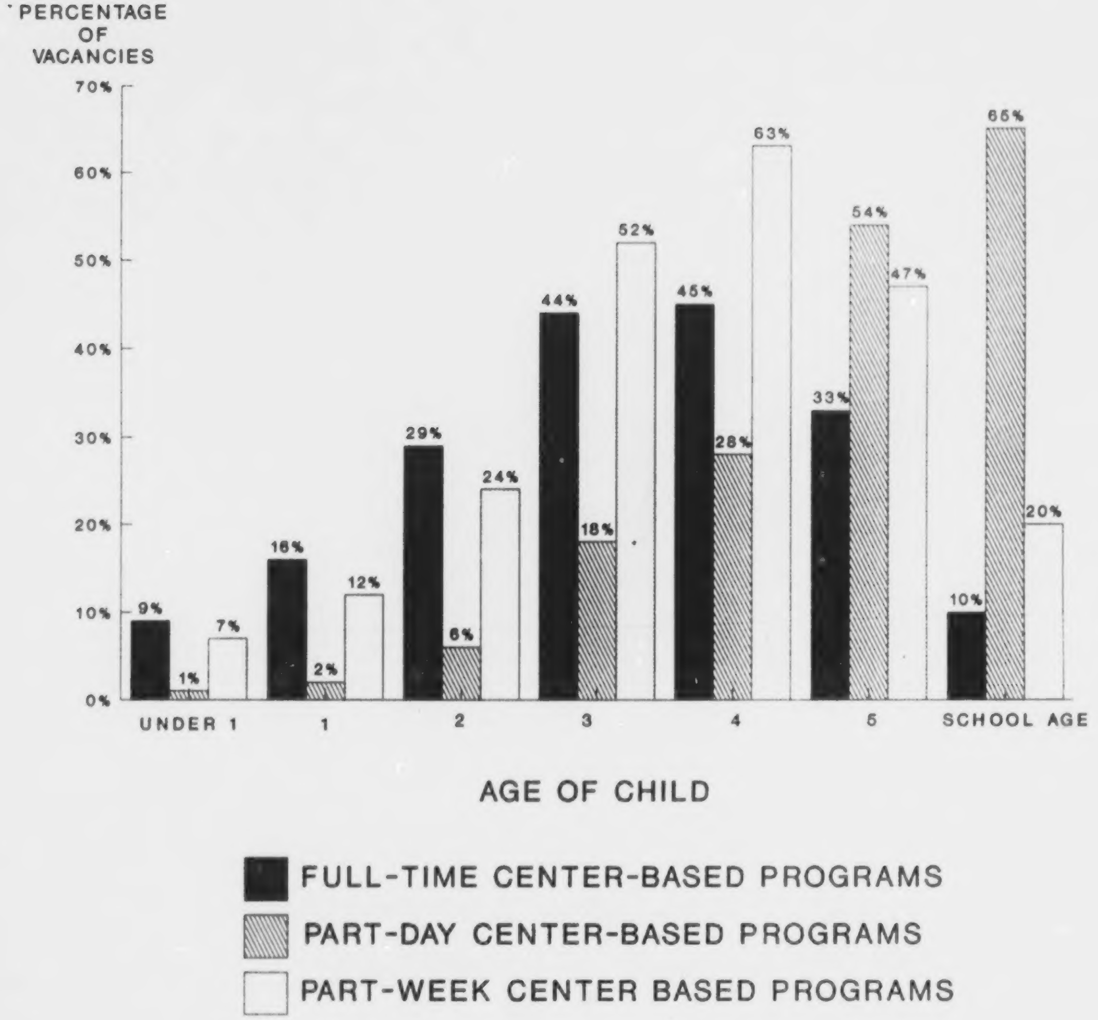
[25] Regulated family day care providers were not asked about the ages of additional children for whom they would be willing and able to provide care.

[26] The first quarter of 1989 was chosen as the period of reference because it was the only quarter completed by all programs at the time of the interview that was not affected by changes in arrangements for the summer months.

FIGURE III.16

VACANCIES IN CENTER-BASED PROGRAMS BY AGE OF CHILD



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

STAFFING

A critical aspect of early education and care programs is their staffing--the number and types of teaching staff employed, the characteristics and qualifications of the staff, staff salaries and benefits, and staff turnover. The following subsections describe the numbers and characteristics of classroom staff and teacher salaries and benefits. Teacher qualifications and rates of teacher turnover are discussed in Chapter IV.

The Number of Staff

On average, centers employ five teachers, four of whom are employed full-time (at least 35 hours per week or for the full hours during which the program operates). They also employ an average of between two and three assistant teachers and aides, two of whom are employed full-time. Centers also receive assistance from an average of three regular volunteers, who work in the program for an average of 10 hours per week.

The key staff persons in regulated home-based settings are the family day care providers themselves. However, approximately 40 percent of regulated family providers have business partners or helpers to assist with child care. These helpers, who help the provider for an average of 16 hours per week, are primarily relatives or friends (67 and 17 percent, respectively). Approximately one-third of the related helpers are spouses of the provider, and one-third are children of the provider.

Staff Characteristics

The ethnic composition of paid classroom staff in early education and care programs reflects the ethnic composition of the children for whom they provide care. In centers, 74 percent of paid classroom staff are white, 18 percent are black, 5 percent are Hispanic, and 3 percent are members of other ethnic groups (see Figure III.14). Just as children who are enrolled in regulated family day care programs are more likely to be white, regulated family day care providers are more likely than staff in centers to be white. Approximately 81 percent of providers are white, 10 percent are black, 7 percent are Hispanic, and 2 percent are members of other ethnic groups.

Teachers in centers (not including assistant teachers or aides) range in age from 18 to 73 years, and are 36 years old on average. Similarly, regulated family day care providers range in age from 20 to 80 years old, and are 40 years old on average.

Most regulated family day care providers are married (82 percent). However, 11 percent are separated or divorced, 4 percent are widowed, and 4 percent have never been married. The proportion of regulated family day care providers who are married is very high relative to the population of women over age 15, 57 percent of whom are married, 23 percent of whom have never been married, 12 percent of whom are widowed, and 9 percent of whom are divorced (U.S. Bureau of the Census, 1990).

Teacher Salaries and Benefits

The average annual salary for a preschool teacher in a center is approximately $11,500. Half of preschool teachers earn less than $11,000 per year. The average hourly wage earned by preschool teachers is $7.49 per hour.[27]

Average hourly wages vary by region, urbanicity, and type of provider. Teachers in the Northeast earn an average of $9.63 per hour, compared with $7.89 in the West, $7.58 in the Midwest, and $6.58 in the South. Wages are considerably higher in urban areas ($8.42 per hour) than in suburban and rural areas ($6.92 and $6.25 per hour, respectively). Teacher salaries vary substantially among different types of centers (Table III.17). Average wages are highest in public-school-based programs ($14.40 per hour) and lowest in for-profit chain programs ($5.43 per hour).

Average wages also vary by whether or not the center operates full-time. Preschool teachers in full-time programs earn an average of $6.84 per hour, considerably less than the average pay of

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[27] The average preschool teacher works approximately 30 hours per week, and most programs are open 50 weeks per year.

TABLE III.17

AVERAGE TEACHER WAGES IN CENTERS

	Hourly Wage		
	Mean	Standard Error	Sample Size
All Teachers[a]	$7.49	($0.19)	1,468
Teachers in:			
Northeast	$9.63	($0.38)	274
South	$6.58	($0.28)	568
Midwest	$7.58	($0.34)	349
West	$7.89	($0.38)	277
Urban areas	$8.42	($0.26)	656
Suburban areas	$6.92	($0.29)	514
Rural areas	$6.25	($0.36)	298
Head Start programs	$9.67	($0.44)	195
Public-school-based programs	$14.40	($0.43)	205
Religious-sponsored nonprofit programs	$8.10	($0.44)	199
Other sponsored nonprofit programs	$8.46	($0.57)	
Independent nonprofit programs	$7.40	($0.35)	826
For-profit chain programs	$5.43	($0.71)	78
Independent for-profit programs	$6.30	($0.33)	361
Full-time programs	$6.84	($0.22)	983
Part-day programs	$10.49	($0.39)	254
Part-week programs	$10.22	($0.49)	157

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs that serve primarily handicapped children and programs that do not serve preschool children age 3 and older.

[a] Does not include assistant teachers or aides.

$10.49 per hour in part-day, preschool programs and $10.22 per hour in part-week programs (Table III.17).

In addition to their wages, many preschool teachers receive some fringe benefits, most often paid sick leave (75 percent), paid vacation time (64 percent), and/or educational stipends (77 percent) (Figure III.17). Less than half of preschool teachers receive reduced fees for their own children, pension benefits, life insurance, health insurance, or paid maternity leave.

The average annual revenue received from child care by regulated family day care providers is approximately $10,000, and half of regulated family day care providers take in less than $8,800 per year (Table III.18).[28] Based on the hours for which they provide care, these figures translate into revenues of $4.04 per hour, and half of regulated home-based providers take in less than $3.15 per hour, below the minimum wage. Since they are self-employed, family day care providers receive no benefits.

Approximately half of the helpers in regulated family day care settings are paid in cash for their assistance, and they earn an average of $3.48 per hour. Slightly less than one-fourth of helpers are paid in-kind for their help. Of those paid in kind, 39 percent receive meals, 20 percent receive child care, 24 percent receive transportation, and 19 percent receive housing, and 26 percent receive other in-kind payments.

PROGRAM GOALS AND ACTIVITIES

At the heart of early education and care programs are the activities and services that the programs provide for children. Their program goals, classroom structure, activities, and supplemental services shape the nature and quality of the care they provide.

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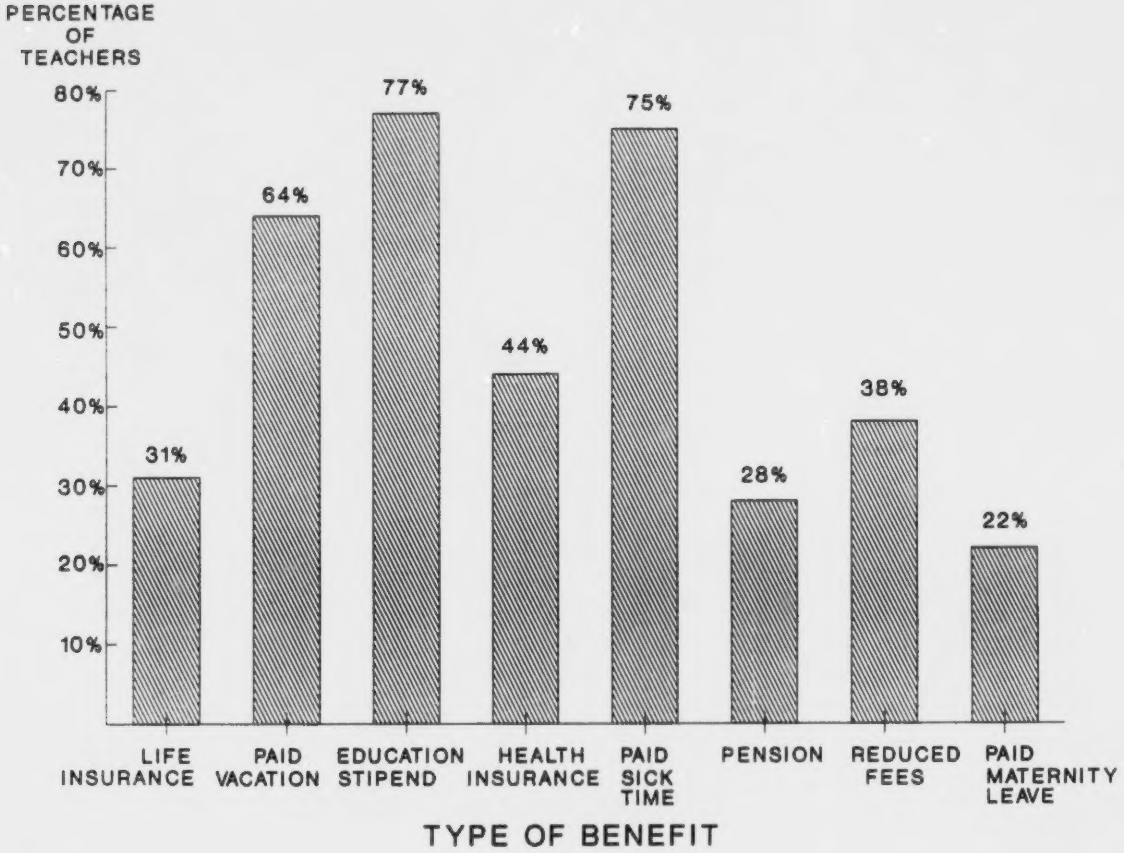
[28] The average regulated family day care provider operates for 55 hours per week and 50 weeks per year.

FIGURE III.17

FRINGE BENEFITS RECEIVED BY PRESCHOOL TEACHERS* IN CENTER-BASED PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990)

*DOES NOT INCLUDE ASSISTANT TEACHERS AND AIDES.

TABLE III.18

REVENUES IN REGULATED HOME-BASED PROGRAMS

	Revenues		
	Mean	Standard Error	Sample Size
Average Revenues from Child Care			
Annual revenues	$10,161	($506)	495
Hourly revenues	$4.04	($0.28)	470
Percentage of Providers with Partners or Helpers	38 %	(3)	583
Average Percentage of Helpers Who Are Paid Cash	50 %	(4)	214
Average Hourly Wage of Helpers Who Are Paid Cash	$3.48	($0.25)	86
Average Percentage of Helpers Who Are Paid in Kind	19 %	(3)	214
Of Those Paid in Kind, the Average Percentage Who Receive:			
Meals	39 %	(7)	42
Child care	20	(6)	42
Transportation	24	(6)	42
Housing	19	(6)	42
Other	26	(6)	42

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

Program Goals

Early education and care programs have a variety of goals. In the PCS surveys, center directors and regulated family day care providers were asked about seven goals, including whether or not each goal was among their program's goals and which goal was their most important goal.

The majority of both center-based and home-based programs reported that their main goal is to provide a warm, loving environment for children (Figure III.18). Half of all centers and three-fourths of home-based programs reported that this is their most important goal.

A significant proportion of providers reported that promoting child development, preparing children for school, or teaching children appreciation for their culture is their main goal. Twenty (20) percent of centers reported that their primary goal is to promote child development, while 13 percent reported that preparing children for school is their main goal. Head Start and public-school-based programs were approximately twice as likely as other types of centers to report that child development and school preparation are their main goals. Among home-based providers, 7 percent reported that child development is their main goal, and 6 percent reported that preparing children for school is their main goal.

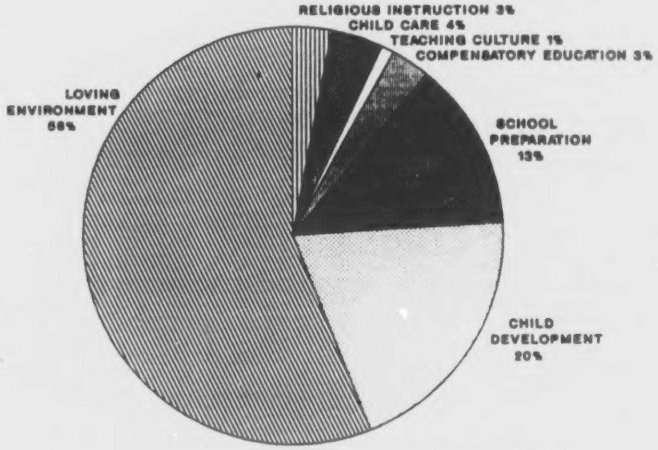
The remaining goals asked about in the survey, including providing child care so parents can work, providing compensatory education, and providing religious instruction, were not the main goal of most programs. Fewer than 5 percent of both center-based and regulated home-based programs cited one of these goals as their most important goal.

Regulated family day care providers were also asked about their primary reason for providing child care. Slightly more than half of regulated family day care providers are providing care for income-related reasons. Approximately one-third (34 percent) of regulated family day care providers reported that their major reason for providing care is to enable them (financially) to stay at home with their own children (Table III.19). An additional 20 percent of home-based providers reported that they are in the business of providing child care to make money.

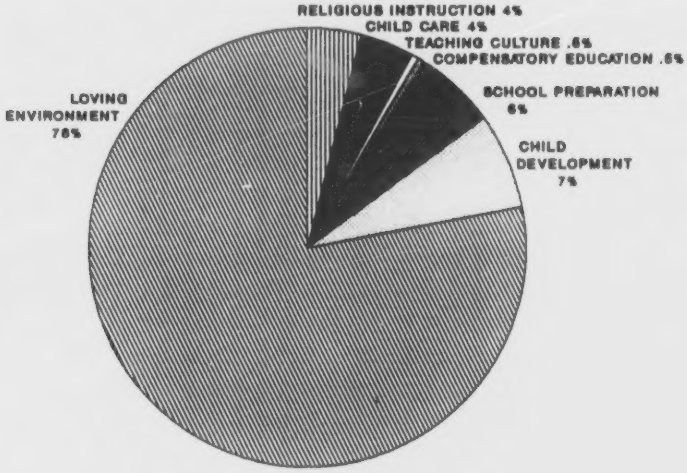
FIGURE III.18

MAIN GOALS IN EARLY EDUCATION AND CARE PROGRAMS

CENTER-BASED PROGRAMS



REGULATED HOME-BASED PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

TABLE III.19

RATIONALE FOR OFFERING REGULATED HOME-BASED PROGRAMS

	Home-Based Providers
Percentage of Home-Based Providers Whose Major Reason for Providing Care Is:	
Financial ability to stay home with own children	34 %
The money	20
Like children	30
There is a need for good child care	9
Relatives or friends need care so they can work	3
Other	4
Sample Size	583

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

Slightly less than half of regulated family day care providers cited reasons for providing care which suggest that child care is their chosen occupation. Approximately 30 percent of regulated home-based providers are providing child care specifically because they like children, and 9 percent are providing care because a need for good child care exists.

Program Structure

Most centers are organized into groups of children who are cared for together by an assigned teacher or group of teachers. Because child care settings are dynamic and groups may change over the course of the day, program directors were asked to characterize groups of children who are cared for together for most of the day. If center directors reported that groups change frequently during the day, they were asked about groups of children who were cared for together during a typical morning or afternoon activity period.

The average classroom structure of centers consists of 4 groups (Table III.20). Three-quarters of all centers (85 percent) have 6 or fewer groups, and nearly one-third (32 percent) have only 1 or 2 groups. In the average center, the average (and median) number of children in a group is 16 children. However, average group sizes vary widely across centers, with groups as small as 1 child and as large as the entire program (in cases where the program is not divided into groups). On average, centers maintain a child-staff ratio of 9 children per staff member.[29]

Children in regulated family day care settings are generally cared for together in one group by the family day care provider and possibly a partner or assistant. The average group size in regulated family day care programs is 6 children plus 1 child of the provider, but it ranges from 1 to 21 children.

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[29] Group sizes and child-staff ratios are examined in detail in Chapter IV.

TABLE III.20

CLASSROOM STRUCTURE IN EARLY EDUCATION AND CARE PROGRAMS

	Center-Based Programs[a]	Regulated Home-Based Programs[b]
Distribution by Number of Groups:		
1-2	32 %	n.a.
3-4	33 %	n.a.
5-6	20 %	n.a.
7-9	10 %	n.a.
10-15	4 %	n.a.
16+	0.3 %	n.a.
Average	4	n.a.
Average Group Size	16	7
Average Child-Staff Ratio[c]	9	6

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Excluding programs primarily for handicapped children.

[b] Includes provider's own children.

[c] For centers, the child-staff ratio is the group size divided by the number of teachers, assistant teachers and aides who are with the group. For family providers, the child-staff ratio is the maximum ratio and equals the number of children in care, including the provider's own children, divided by 1 plus the full-time equivalent help received by the provider.

Program Activities

Curriculum and Planning

Teachers in 85 percent of center-based early education and care programs follow a written curriculum in planning daily activities. Teachers in Head Start programs and in for-profit chain programs are more likely than teachers in other types of programs to follow a written curriculum (96 versus 85 percent).

Approximately 80 percent of centers provide their teachers with regular paid time for planning children's activities. Head Start and public-school-based programs are considerably more likely than other types of centers to provide paid planning time. More than 90 percent of Head Start and public-school-based centers provide paid planning time, compared with 69 percent of religious-sponsored centers and 78 percent of other centers.

Approximately two-thirds of regulated home-based providers reported planning children's activities. Regulated providers who care for more than 3 children are more likely than smaller providers to plan activities (approximately 72 versus 59 percent). Most of these providers plan activities during evenings and weekends, but one-quarter of providers who plan activities reported planning them while caring for children. Home-based providers who plan activities spend an average of 3 hours per week on planning.

Time Spent In Various Types of Activities

Child development research highlights the importance of activities that include both structured and unstructured learning activities, as well as a balance of teacher- and child-initiated activities (Hayes et al., 1990). In general, both center-based and regulated home-based early education and care programs reported that 3- to 5-year-old children in their care engaged in a balance of activities.

It is extremely difficult to collect detailed and accurate information about children's activities in a telephone survey because of the limited time available, the accurate recall required of the respondent, and the impossibility of constructing clear, mutually exclusive categories of types of activities. Thus, the information collected in the PCS surveys should be taken only as suggestive of the balance among broad types of activities in early education and care programs. In the surveys, respondents were asked to estimate the percentage of time that children between the ages of 3 and 5 spent in physical activities led by an adult, in creative activities led by an adult, in teacher-directed instruction, in other teacher-directed group activities, and in child-initiated free-choice activities.

On average, respondents for both center-based and home-based programs accounted for 90 percent of children's time, which is reasonable, since many respondents did not consider eating or napping to be included in any of the categories. However, it should be noted that in some cases the percentages of time spent in the five groups of activities sum to more than 100 percent, since some respondents did not consider the categories to be mutually exclusive.

On average, preschool children in centers spent the greatest amount of time in child-initiated free-choice activities (25 percent) and teacher-directed creative activities (23 percent) (Table III.21). Approximately 18 percent of preschool children's time is spent in adult-led physical activities, 15 percent of their time in teacher-directed instructional activities, and 12 percent of their time in other adult-led group activities. However, the composition of children's activities varies substantially across centers.

Compared with preschool children in center-based settings, preschool children in regulated home-based settings spend proportionately more of their time in child-initiated activities (29 percent) and adult-led physical activities (26 percent) and proportionately less time in creative activities (19 percent), teacher-directed instructional activities (10 percent), and other adult-led group activities (9 percent). As was the case with centers, the composition of children's activities varies substantially across providers.

In centers, which are much larger than home-based programs, children's activities are fairly evenly distributed among large group, small group, and individual activities. On average, preschool children in centers spend 37 percent of their time in large group activities with 10 or more children, 35 percent of their time in small group activities, and 28 percent of their time in individual activities (Table III.21).

Television-watching by preschool children is reported to be relatively uncommon in centers. Children in two-thirds of all programs (67 percent) do not watch television at all, either educational or other types of programs. In centers that include television-watching, preschool children spend an average of 9 percent of their time (about 30 minutes per day) watching educational television and 8 percent of their time (about 25 minutes per day) watching other television programs.

Preschool children in regulated family day care settings spend more time watching television. Children in nearly all regulated home-based settings (approximately 90 percent) watch some television. On average, preschool children in family day care spend 11 percent of their time (around one hour) watching educational television and 5 percent of their time (about a half hour) watching other television programs.

Parental Involvement

Parental involvement in early education and care programs can take many forms, some of which are closely related to children's activities and some of which are well-removed from daily activities. An important aspect of parental involvement in the care of their own children is communication with the provider about their children's care. Approximately three-fourths (73 percent) of all centers reported that their teachers have regularly scheduled meetings with the parents of each child to discuss their child's care and activities (Table III.22). An additional 9 percent of centers reported that teachers talk with parents during drop-offs and pick-ups or on an irregular basis. In addition to parent conferences, program staff in about one-fourth of centers make home visits to talk with parents about their child's care.

Regular meetings with parents to discuss their child's care and activities are much less common in regulated family day care settings where communication is more likely to be informal. Only 14

TABLE III.21

ACTIVITIES OF 3- TO 5-YEAR-OLD CHILDREN IN EARLY EDUCATION AND CARE PROGRAMS

	Center-Based Programs[a]	Regulated Home-Based Programs
Average Percentage of Time Spent by 3- to 5-Year Old Children in:		
Physical activities	18 %	26 %
Creative activities	23	19
Instruction	15	10
Other group activities	12	9
Child-initiated activities	25	29
Total	90	90
Large group activities (10 or more children)	37	n.a.
Small group activities (2 to 9 children)	35	n.a.
Individual activities	28	n.a.
Watching educational television	3 (9)[b]	11
Watching other television	1 (8)[b]	5
Sample Size	1,782	583

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: n.a. means not applicable.

[a] Excluding programs primarily for handicapped children and programs that do not serve preschool children ages 3 and older.

[b] Numbers in parentheses omit programs in which there is no television-watching (67 percent).

percent of home-based programs reported having regular meetings with parents, and only 7 percent visit children's homes to talk with parents about their children's care (Table III.22). Although family providers indicated that much communication occurs during drop-offs or pick-ups (39 percent) or on an irregular basis (6 percent), 41 percent of regulated providers simply responded that they did not meet regularly with parents.

Parents may also be involved directly in their child's activities at centers by serving as volunteers in the classroom, participating in choosing and monitoring activities, and regularly dropping in to check on their child or the program. Approximately one-fourth of centers reported that parents serve as volunteers in classrooms (28 percent). Parent volunteers in the classroom are much more common in Head Start programs, for which performance standards emphasize parental involvement. Approximately 88 percent of Head Start programs have parents involved in this way, compared with 45 percent of public-school-based programs, 24 percent of religious-sponsored centers, and 20 percent of other centers (Table III.23).

Approximately one-fourth of centers reported that parents participate in choosing and monitoring activities (26 percent). Again, Head Start programs and to a much lesser extent public-school-based programs are much more likely than other types of centers to involve parents in this way. Nearly three-quarters of centers reported that parents regularly drop in to check on their child or the program (73 percent).

The parents of children also contribute to the centers by participating in staff selection, reviewing budgets, raising funds, and helping with building maintenance. The parents of children in about half of all centers help with fund raising (49 percent), while the parents of children in fewer than one-quarter of all centers review budgets (21 percent), help with building maintenance (18 percent), or participate in staff selection (16 percent). Head Start programs are substantially more likely than other types of programs to involve parents in these ways.

TABLE III.22

PARENT CONFERENCES AND HOME VISITS IN EARLY EDUCATION AND CARE PROGRAMS

	Center-Based Programs[a]	Regulated Home-Based Programs
Percentage of Programs That Meet with Parents to Discuss Their Child's Care:		
Regularly	73 %	14 %
During drop-offs and pick-ups	4	39
Irregularly	5	6
Do not meet regularly with parents	18	41
Percentage of Programs That Make Home Visits to Discuss Child's Care with Parents	24	7
Sample Size	1,811	583

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Excluding programs that serve primarily handicapped children and programs that do not serve preschool children ages 3 and older.

TABLE III.23

PARENTAL INVOLVEMENT IN CENTERS BY PROGRAM TYPE

	Type of Program				
	All Types	Head Start	Public School	Religious-Sponsored	Other
Percentage of Programs In Which Parents:					
Volunteer in the classroom	28 %	88 %	45 %	24 %	20 %
Help select staff	16	78	9	11	10
Review budgets	21	80	20	21	13
Help choose and monitor activities	26	89	37	17	19
Do fund raising	49	70	35	50	48
Help with maintenance	18	34	8	14	17
Drop in to check on program or children	73	89	82	74	70
Attend workshops	40	91	64	33	32
Use program facilities for social activities	34	73	34	32	29
Sample Size	1,811	231 [a]	255	240	1,085

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table excludes programs primarily for handicapped children and programs that do not serve preschool children ages 3 to 5.

[a] Programs that are sponsored by both Head Start and a public school are included in the Head Start category for this analysis.

Finally, parents may be involved with their child's early education and care program through social activities or workshops and classes at the program. Approximately 40 percent of programs have parents attend workshops or classes at their program, and parents in one-third (34 percent) of programs use the program site for social activities.

Supplemental Services

Meals

Most (92 percent) centers regularly prepare and serve meals or snacks to the children who attend their program (Table III.24). Among those centers that prepare and serve meals or snacks, nearly all serve snacks, approximately half serve breakfast, two-thirds serve lunch, and very few (3 percent) serve dinner. Among those centers that serve meals or snacks, approximately one-third (30 percent) participate in the Child and Adult Care Food Program.[30]

Nearly all (95 percent) regulated family day care providers reported that they sometimes prepare and serve meals or snacks to the children in their care. Among those providers who do prepare meals, virtually all of them prepare and serve snacks and lunch (94 and 92 percent, respectively), and most of them prepare and serve breakfast (84 percent). However, only one-third (35 percent) prepare and serve dinner to children in their care. Among providers who prepare and serve some meals or snacks, approximately three-fourths (74 percent) participate in the Child and Adult Care Food Program.

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[30] The Child and Adult Care Food Program, which was authorized under the National School Lunch Act and is administered by the U.S. Department of Agriculture, provides federal funds for meals served to children in nonresidential day care facilities. Licensed child care centers are eligible to participate if they are public or private nonprofit organizations or if they are for-profit organizations that receive Title XX subsidies for at least 25 percent of children enrolled. Family day care providers are eligible to participate if they meet licensing requirements (when they are imposed) or are approved by a state or local agency and if they are sponsored by an organization that will assume responsibility for ensuring compliance with federal and state regulations and will act as a conduit for meal service reimbursements.

Sick Child Care

Only small percentages of centers allow parents to leave children who have symptoms of illness. Approximately 15 percent of centers reported that they would allow parents to leave a child with a severe cough, 6 percent would allow parents to leave children with a feverish appearance, and 3 percent would allow parents to leave children with unusual spots or rashes (Table III.24). Most centers reported separating sick children (including those who arrive sick and those who become sick while at the center) from other children (88 percent). The majority of centers will administer either prescription or over-the-counter drugs to a child at the parents' or physician's request; 79 percent will administer prescription drugs, and 63 percent will administer nonprescription drugs.

Regulated family day care providers are more likely than centers to accept sick children. Approximately one-fourth will allow parents to leave children with severe coughs, 20 percent allow parents to leave children with a feverish appearance, and 10 percent allow parents to leave children with unusual spots or rashes (Table III.24). Most regulated family day care providers (83 percent) reported that they have an area where sick children are isolated from the other children. Regulated family day care providers are also more likely than centers to administer medications to children in their care. Most regulated providers will administer prescription medications at the request of the parent or a physician (95 percent), and 90 percent will administer nonprescription medications at the request of the parent or physician.

Health and Safety Features

Nearly all center-based and home-based early education and care programs reported that they maintain records for each child, including the telephone number of the child's doctor (98 and 99 percent) and a medical release (96 and 95 percent) (Table III.24). Nearly all home-based programs reported that they have a plan to follow if one of the children in their care needs emergency medical care (99 percent). Virtually all center-based and regulated home-based providers have a list of persons to whom the child may be released (99 and 98 percent, respectively), as required in most

TABLE III.24

SUPPLEMENTAL SERVICES PROVIDED BY EARLY EDUCATION AND CARE PROGRAMS

	Center-Based Programs[a]	Regulated Home-Based Programs
Percentage of Programs That Prepare and Serve:		
Breakfast	45 %	84 %
Lunch	62	92
Dinner	3	35
Snacks	89	94
Any meal or snacks	92	95
Percentage of Programs Serving Meals That Participate in the Child and Adult Care Food Program	30	74
Percentage of Programs That Accept Children with:		
Severe coughs	15	28
Feverish appearance	6	20
Unusual spots or rashes	3	10
Percentage of Programs That Isolate Sick Children	88	83
Percentage of Programs That Will Administer Medication at Parent or Physician's Request:		
Over-the-counter medications	63	90
Prescription medications	79	95
Percentage of Programs That Have:		
Doctor's phone number for all children	98	99
Medical release for each child	96	95
Plan for medical emergency	n.a.	99
Fire drills	98	64

TABLE III.24 (continued)

	Center-Based Programs[a]	Regulated Home-Based Programs
List of persons to whom each child may be released	99	98
Percentage of Programs That Make The Following Arrangements When Provider is Sick:		
Cancel group or tell parents to make other arrangements	2	35
Make alternative arrangements	n.a.	47
Hire a substitute caregiver	69	n.a.
Rearrange staff	49	n.a.
Ask parent or volunteer to help	10	n.a.
Care for children anyway	n.a.	3
Never get sick	n.a.	15
Other	1	0
Percentage of Programs that Provide:		
Physical examinations	13	n.a.
Dental examinations	16	n.a.
Hearing, speech, or vision testing	55	n.a.
Psychological testing	23	n.a.
Testing for cognitive development	43	n.a.
Testing for social development	42	n.a.
Sample Size	1,811	583

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: n.a. means not applicable.

[a] Excluding programs that serve primarily handicapped children and programs that do not serve preschool children ages 3 and older.

state regulations. In addition, nearly all centers (98 percent) and two-thirds of regulated family day care providers reported conducting fire drills with the children currently enrolled in their program.

Early education and care programs handle the illness of caregivers in various ways. Although approximately 15 percent of regulated family day care providers reported that they are never sick and never need to make alternative arrangements, 47 percent reported that they arrange for someone else to care for the children, and 35 percent tell parents to make other arrangements. A very small percentage of providers said that they care for children even when they are sick (3 percent).

Center-based early education and care programs have greater flexibility for coping with the illness of teachers. Two-thirds of centers reported hiring substitutes when teachers are sick (Table III.24). Nearly half of centers reported that they sometimes rearrange classrooms to accommodate the absence of teachers. Only small percentages of centers reported that they ask a parent or other volunteer to fill in for the absent staff member, cancel the group or class, or take some other action.

Screening/Testing

Some center-based early education and care programs that serve preschool-age children offer health examinations and developmental screening (Table III.24). Approximately half of all centers offer hearing, speech, or vision testing (55 percent), while 13 percent offer physical examinations and 16 percent offer dental examinations. Approximately 40 percent of centers offer testing for cognitive and social development (43 percent and 42 percent, respectively), while slightly less than one-fourth (23 percent) of centers offer psychological testing.

Head Start programs (by design) are much more likely than other types of programs to offer each of these services. Nearly all Head Start programs offer hearing, speech, or vision testing (99 percent), cognitive-development testing (97 percent), and social-development testing (95 percent). Ninety percent of Head Start programs offer psychological testing, 81 percent provide dental examinations, and 72 percent provide physical examinations.

With the exception of the physical and dental examinations, the majority of public-school-based programs also offer these services. Approximately 85 percent of public-school-based programs provide hearing, speech, or vision testing, 77 percent offer cognitive-development testing, 75 percent offer social-development testing, and 61 percent offer psychological testing. Approximately one-third of public-school-based programs provide physical and dental examinations.

About half of other types of programs provide hearing, speech, or vision testing, one-third offer developmental testing, and fewer than 15 percent of other programs provide psychological testing or physical or dental examinations.

PROGRAMS SERVING LOW-INCOME CHILDREN

The first national education goal declares that all children should enter school ready to learn and states that to achieve this goal, all eligible children should have access to Head Start, Chapter 1, or some other successful preschool program with strong parental involvement. Because of this emphasis on school readiness and early education for disadvantaged children, the characteristics of early education and care programs currently serving low-income children are of particular interest. The following sections examine differences in the characteristics of programs serving low-income children and programs not serving low-income children.

Centers[31]

Center-based programs in which 25 percent or more of children have parents receiving public assistance ("lower-income centers") are much more likely than centers serving proportionately fewer low-income children ("higher-income centers") to be nonprofit organizations (80 versus 57 percent, respectively). Excluding public-school-based programs, approximately one-third of centers serving large proportions of low-income children are sponsored by Head Start, 15 percent are sponsored by state or local governments, and 13 percent are sponsored by social service agencies (Table III.9).

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[31] This section excludes public-school-based programs for which information on the public assistance status of children was not collected. However, most public school early childhood programs are targeted to and serve children from low-income families.

Lower-income and higher-income centers differ primarily in the characteristics of the children enrolled, the health and testing services they provide, and the parental fees they charge. Lower-income and higher-income centers do not differ significantly in the size of their enrollment, on average, but children enrolled in lower-income centers are significantly more likely than children enrolled in higher-income centers to be 3 or 4 years old (Table III.25). In addition, children enrolled in lower-income centers are substantially more likely than children enrolled in higher-income centers to be black (39 versus 12 percent) or Hispanic (12 versus 5 percent) and less likely to be white (44 versus 79 percent). An average of 62 percent of children in lower-income centers were reported to have parents receiving public assistance, compared with only 3 percent of children enrolled in higher-income centers.

Significantly higher proportions of lower-income centers provide health services and developmental testing. While relatively few higher-income centers provide physical or dental examinations, more than one-third of lower-income centers provide these services (5 and 7 percent versus 37 and 42 percent, respectively). Three-quarters of lower-income centers and one-half of higher-income centers provide hearing, speech, or vision testing. Approximately twice as many lower-income as higher-income centers provide developmental testing, including cognitive-development testing (63 versus 35 percent), social-development testing (64 versus 33 percent), and psychological testing (49 versus 12 percent).

The staff characteristics of lower-income and higher-income centers are generally similar. Average teacher wages and average annual teacher turnover rates are not significantly different. Staff education levels also tend to be similar, although staff in lower-income centers are significantly more likely than staff in higher-income centers to have an associate's degree or a Child Development Associate credential.

TABLE III.25

SELECTED CHARACTERISTICS OF CENTERS BY THE INCOME LEVELS OF CHILDREN SERVED

	Proportion of Children from Low-Income Families	
	Less Than 25%	25% or More
Percentage of Programs That Are Licensed	95 %	95 %
Average Licensed capacity	62	56
Average Enrollment	68	57
Average Distribution of Enrollment by Age		
0 to 11 months	3 %	3 %
12 to 23 months	5 %	5 %
24 to 35 months	11 %	8 %
36 to 47 months	24 %*	21 %
48 to 59 months	30 %*	40 %
60 to 71 months	9 %	10 %
School-age	19 %*	12 %
Average Percentage of Children Who Are:		
White, non-Hispanic	79 %*	44 %
Black, non-Hispanic	12 %*	39 %
Hispanic	5 %*	12 %
Asian	3 %	3 %
American Indian	<1 %*	1 %
Average Percentage of Children Whose Parents Receive Public Assistance	3 %*	62 %
Average Percentage of Teachers With:		
Graduate degree	11 %	11 %
College degree	35 %	31 %
Associate's degree	12 %*	17 %
CDA	10 %*	21 %
Some college	16 %	14 %
High school diploma	15 %*	6 %
Less than high school	1 %	0 %
Average Hourly Wage of Teachers	$7.26	$7.27
Average Annual Rate of Teacher Turnover	26 %	25 %
Average Group Size by Age of Youngest Child		
0 to 11 months	8 *	10
12 to 23 months	10	12
24 to 35 months	14	13
36 to 47 months	16 *	18
48 to 59 months	16	17
60 or more months	17	16

TABLE III.25 (continued)

	Proportion of Children from Low-Income Families	
	Less Than 25%	25% or More
Average Child/Staff Ratio by Age of Youngest Child		
0 to 11 months	4.3	4.4
12 to 23 months	5.7	5.9
24 to 35 months	7.5	7.3
36 to 47 months	8.8 *	8.2
48 to 59 months	9.9 *	9
60 or more months	10.8	10.1
Percentage of Programs That Provide:		
Physical examinations	5 %*	37 %
Dental examinations	7 %*	42 %
Hearing, speech, vision testing	48 %*	74 %
Psychological testing	12 %*	49 %
Cognitive Development Testing	35 %*	63 %
Social development testing	33 %*	64 %
Percentage of Programs That Charge Some Fees	97 %*	55 %
Average Hourly Fee (Excluding 0's):		
All ages	$1.67 *	$1.21
0 to 11 months	$1.30	$1.39
12 to 23 months	$1.46	$1.48
24 to 35 months	$1.68 *	$1.30
36 to 47 months	$1.92 *	$1.25
48 to 59 months	$1.97	$1.13
60 to 71 months	$1.67	$1.77
School-age	$1.70	$1.65
Average Percentage of Budget Met With:		
Parental fees	89 %*	26 %
Government funds	7 %*	67 %
Percentage of Programs Receiving In-Kind Donations	26 %*	52 %
Average Percentage of Budget Spent On Salaries and Benefits	61 %	63 %
Sample Size	983	389

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: This table excludes public-school-based programs for which information on the income levels of childrens' families was not collected.

*Statistically significant difference at the 95 percent confidence level.

The classroom structure of lower-income and higher-income programs is also quite comparable. Average group sizes are not significantly different in most age groups. The only exceptions are in groups in which the youngest child is an infant or 3 years old, for which the average group size is significantly higher in lower-income centers. Similarly, the average child-staff ratios maintained by lower-income and higher-income centers are not significantly different, except for groups in which the youngest child is 3 or 4 years old, for which lower-income centers maintain significantly smaller ratios.

Lower-income centers are significantly less likely than higher-income centers to charge any fees (55 versus 97 percent). Moreover, among centers that charge fees, the average fee charged by lower-income centers is significantly lower than the average fee charged by higher-income centers ($1.21 versus $1.67 per hour). Consistent with these differences in fees, lower-income centers receive significantly more of their income from government subsidies (67 versus 7 percent) and less of their income from parent fees (26 versus 89 percent).

Regulated Family Day Care Providers

Regulated family day care providers who serve any children whose parents receive public assistance ("low-income providers") are very similar to providers who do not serve any children whose parents receive public assistance ("high-income providers"). They differ primarily in the extent to which they are sponsored and participate in the Child and Adult Care Food Program, the number of children they serve, and the extent to which they care for children paid for by a public agency.

Low-income providers are more likely than high-income providers to be sponsored by a group that organizes family day care in their community (Table III.26). This may result partly from their greater levels of participation in the Child and Adult Care Food Program, which requires providers to be sponsored by an agency that will monitor compliance with program requirements and serve as a conduit for meal reimbursements. This sponsor may or may not be a group that organizes family day care in the community.

TABLE III.26

SELECTED CHARACTERISTICS OF REGULATED HOME-BASED PROGRAMS ACCORDING TO WHETHER THEY SERVE ANY LOW-INCOME CHILDREN

	Serve Any Children With Parents Receiving Public Assistance	
	Yes	No
Average Number of Children Cared For	7.0 *	5.5
Average Number of Children Licensed to Care For	7.6	7.2
Percentage Listed With a Resource and Referral Agency	92 %	91 %
Percentage Who Are Sponsored	36 %*	19 %
Percentage Who Belong to a Family Day Care Organization	39 %	30 %
Percentage Who Participate in the Child and Adult Care Food Program	89 %*	75 %
Percentage Who Have Helpers	43 %	35 %
Average Group Size, Including Provider's Own Children	7.9 *	6.6
Average Child-Adult Ratio, Including Provider's Own Children	6.2	5.8
Percentage of Providers Who Are:		
Black, non-Hispanic	15 %	9 %
Hispanic	9 %	7 %
White, non-Hispanic	75 %	82 %
Other	2 %	2 %
Percentage of Providers Who Have Completed:		
Less than high school	15 %	10 %
High school or GED	42 %	33 %
Less than 2 years of college	15 %	15 %
Associate's degree	2 %*	10 %
2 or more years of college	7 %*	17 %
Vocational/technical program	3 %	4 %
College degree	16 %	9 %
Graduate degree	1 %	1 %
Percentage Who Have Had Child-Related Training	73 %	61 %
Average Hourly Fee Charged	$1.51	$1.66
Percentage of Providers Who Care for Any Children Paid by a Public Agency	67 %*	6 %
Sample Size	97	430

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

*Statistically significant difference at the 95 percent confidence level.

Low-income providers care for more children, on average, than high-income providers (7.0 versus 5.5 children). In addition, both low-income and high-income providers care for an average of one child of their own along with the other children. On average, low-income and high-income providers are licensed to care for similar numbers of children (7.6 and 7.2 children, respectively).

A larger proportion of low-income providers have helpers to assist with child care (43 versus 35 percent). Thus, although low-income providers maintain higher group sizes, their child-staff ratios are not significantly higher than those maintained by high-income providers.

The average hourly fees charged by low-income and high-income providers are not significantly different. However, low-income providers are significantly more likely than high-income providers to receive some fees through government subsidies rather than from parents. More than two-thirds of low-income providers care for at least one child whose fees are paid by a public agency, compared with fewer than 10 percent of high-income providers.

IV. KEY CHARACTERISTICS OF FORMAL EARLY EDUCATION AND CARE PROGRAMS

Psychological theory predicts that the early experiences of children will have a significant influence on their cognitive, social, and emotional development, and thus influence their subsequent life experiences and outcomes. Early education and care experiences may affect the scholastic and social success of children later in life, and may be particularly important for disadvantaged children, who are considered to be at especially high risk of poor achievement in these areas. Because of the increase in nonmaternal care for children and because the mothers of young children who receive welfare benefits are being required to participate in employment-related activities as a condition for receiving welfare, the quality of early childhood programs has become a major policy concern.

Although it is widely agreed that the quality of care for young children is critically important, defining and measuring quality presents a substantial challenge. Quality of care can be defined in terms of both the characteristics of programs and the developmental outcomes of children. Most of the research on the quality of early education and care has focused on the relationship between program characteristics and short- and long-term cognitive, social, and emotional development. Assessing child development requires a substantial amount of observation time with individual children and is, therefore, not a practical approach for a study of national scope. However, by drawing on the results of the developmental research on the quality of care, it is possible to identify several key characteristics of early childhood programs that are related to the development of children. This chapter provides information on these indicators of quality of care--specifically, the aspects of the provider's services, programs, and policies that researchers have shown to influence children's development.

RESEARCH ON QUALITY AND ITS LIMITATIONS

Three distinct but complementary types of quality indicators have been examined in the research literature (Hayes et al., 1990; and Phillips and Howes, 1987). First, *structural indicators*, specifically staff-child ratios and the size of groups of children in care have consistently been associated with developmental outcomes. In addition, Prescott (1970) found that the total size of the child care facility or home may also be an important predictor of sensitive caregiving and the active engagement of children in their daily activities.

Second, among quantifiable quality indicators, research has demonstrated that the strongest effects on children's development pertain to measures that capture *staff qualifications*: education, training, and job experience. Of these three measures, education and training show the most consistent links between early education and care and children's development. In addition, salaries have also recently been identified as an important predictor of quality care (Whitebook et al., 1989).

Third, indicators that describe the *stability and content of care*, including the stability of both caregivers and children's arrangements, have been found to predict both short- and long-term developmental outcomes. The structure and content of children's day-to-day activities in early education and care have received relatively less empirical attention, although early childhood professionals strongly support relying on a "developmentally appropriate curriculum" (National Association for the Education of Young Children, 1988) that is sensitive to the distinct needs of individual children and their developmental levels. The available evidence also suggests that a balance of planned and unplanned activities (as opposed to large amounts of unstructured time), as well as goals that emphasize child development rather than merely the provision of safe care, are associated with more optimal development among preschool-age children in center-based care (McCartney, 1984; and Ruopp et al., 1979). Little is known about the developmental consequences of different amounts and types of planned activities, although, again, early childhood professionals emphasize the importance of developmentally appropriate activities.

For family day care homes, sponsorship appears to be an additional indicator of quality. Specifically, providers who belong to family day care networks or who operate under the aegis of a sponsor tend to offer higher-quality care. The National Day Care Home Study found that sponsored family day care providers placed more emphasis on cognitive and expressive activities. Teaching occurred almost 50 percent more often in sponsored than in nonsponsored family day care settings. In addition, sponsored providers maintained a safer environment and served more nutritious meals (Divine-Hawkins, 1981).

The empirical research on the quality of early education and care has several shortcomings. First, programs for infants and toddlers have only recently begun to be studied, and thus, the available evidence must be viewed as pertaining primarily to preschool-age children. This is an important caveat in light of evidence that different indicators of quality are important for children of different ages. For example, the National Day Care Study (Ruopp et al., 1979) reported that child-staff ratios were a relatively less important indicator of quality for preschoolers than group size, but that both measures were equally important for infants and toddlers. The National Child Care Staffing Study (Whitebook et al., 1989) found that specialized training was a more important predictor of quality care for infants than for older children.

A second important limitation of the research is that interactions among the various quality indicators have not been examined. Although children experience particular configurations of the structural, staffing, and dynamic aspects of care, these quality indicators have been examined in isolation from each other. It is possible, for example, that stringent ratios are relatively less important when child-care staff are highly trained.

A third limitation of the research on quality is that it has failed to take into account the natural confounding influences of children's home environment and their early education and care outside the home. Because parents select their children's early education and care settings and comprehensive data on both family and early education and care experiences have not been collected, it is difficult to disentangle developmental outcomes that derive from family sources from those that are directly associated with early education and care. Moreover, there is evidence that families of lower socioeconomic status and those that experience higher levels of stress and disorganization use lower-quality early education and care arrangements (Clarke-Stewart and Gruber, 1984; Howes and Olenick, 1986; and Phillips et al., 1987).

Finally, the scope of research on the quality of early education and care programs has been limited. Research on quality has been confined to a relatively small number of sites and children and has tended to focus on disadvantaged children in high-quality programs. Much of the research has been IQ-focused due to the lack of instruments to measure social development. Moreover, research has concentrated on identifying the positive effects of high-quality programs.

In the Profile of Child Care Settings (PCS) Study, telephone interviews with center-based program directors and regulated family day care providers were used to collect data on indicators of quality. This approach to data collection is the only practical way to obtain national data on quality. However, it relies on program directors to provide accurate information about their program; thus, some caution must be exercised in interpreting the survey results.

The key indicators of the quality of early education and care options available in the United States today are examined in the following sections. The next section discusses benchmarks for assessing the levels of the quality indicators. The following sections then examine group sizes, child-staff ratios, caregiver qualifications, caregiver stability, and other indicators of quality in comparison with these benchmarks.

BENCHMARKS FOR QUALITY

Benchmarks for the quality indicators reported by center directors and family day care providers are necessary to assess the quality of care provided in center-based and regulated home-based early education and care programs. Four sets of benchmarks representing different levels of quality are available for comparison, including state child care regulations, the National Association for the

Education of Young Children (NAEYC) accreditation criteria, the Health, Education, and Welfare Day Care Requirements (HEWDCR), and the synthesis of professional recommendations reported by the National Academy of Sciences Panel on Child Care Policy.

State child care regulations represent the political consensus regarding the levels of the quality indicators that are acceptable for protecting the health, safety, and basic developmental needs of children in early education and care settings. The political consensus balances the need to protect children's well-being with the need to keep the costs of providing care low and to promote the availability of affordable care. Although many states' regulations define care that meets professional recommendations, child care regulations vary considerably across states. Such variability extends from very stringent regulations to a range of quality that may pose a risk to children (Phillips et al., 1990).

The NAEYC accreditation criteria, developed in 1984 for center-based programs, represent one consensus of early childhood professionals about the criteria that define a good-quality center for children. The NAEYC accreditation criteria are more stringent than some states' child care regulations. Approximately one-fifth of all center-based early education and care centers surveyed reported that they are accredited by NAEYC. Since only approximately 1,500 centers (about 2 percent of all centers) are accredited, many programs erroneously reported being accredited.[1] Head Start centers and public-school-based centers were more likely than other types of programs to report being accredited by NAEYC (47 and 31 percent, compared with 11 percent of religious-sponsored centers and 19 percent of other centers). Consistent with the high proportion of Head Start and public-school-based programs that reported being accredited, centers in urban areas and centers serving higher proportions of low-income children were more likely than other centers to report being accredited by NAEYC.

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[1] The primary reasons for misreporting accreditation are likely to be a lack of knowledge about the accreditation system or the center's accreditation status and a desire to "look good." Center directors may also have reported NAEYC accreditation when their programs are accredited by organizations other than NAEYC.

The 1980 HEWDCR provide a third set of benchmarks with which the quality of center-based and home-based care available in the United States can be assessed. The HEWDCR were developed for federally-funded programs and passed by Congress but were never implemented. Like the NAEYC accreditation criteria, the HEWDCR requirements go beyond protecting the well-being of children to establishing levels of quality that are believed to promote the development of children in early education and care settings. The HEWDCR requirements establish benchmarks that are higher than those specified in the NAEYC accreditation criteria.

Finally, the National Academy of Sciences Panel on Child Care Policy assembled and synthesized the recommendations contained in four sets of standards and two sets of requirements for federal funding. Their synthesis provides ranges of the quality indicators that are acceptable according to a variety of early childhood professionals. The NAS recommendations generally fall in the range between the NAEYC accreditation criteria and the HEWDCR requirements.

GROUP SIZE AND CHILD-STAFF RATIOS

Early research showed that smaller group sizes in child care and early education settings are beneficial for a child's development. Smaller groups were associated with more positive interactions between caregivers and children and with more favorable developmental outcomes (Travers et al., 1980; Howes, 1983; Howes and Rubinstein, 1985; and Clarke-Stewart, 1987). However, more recent evidence has called into question the link between group size and positive developmental outcomes (Whitebook et al., 1989; and Kagan and Newton, 1989). In reviewing the evidence, the National Academy of Sciences Panel on Child Care Policy concluded that the maximum group sizes that are acceptable start at 6 to 8 children for groups of infants younger than one year old and rise to 16 to 20 children for groups of 5-year-old children (Hayes et al., 1990).

Although the research on the relationship between child-staff ratios and child outcomes is also inconsistent, the weight of the evidence suggests that low child-staff ratios are beneficial to children in early education and care programs. Lower child-staff ratios are believed to enhance opportunities for positive adult-child interactions (Howes and Rubenstein, 1985) and, thus, enhance the social competence of children (Phillips et al., 1987; and Howes, 1987).

Child-staff ratios appear to be especially important for infants and toddlers. Lower child-staff ratios in groups of younger children have been shown to facilitate positive social interactions, foster a more positive emotional environment, and promote secure attachments to caregivers (Howes, 1983; Howes and Rubenstein, 1985; and Howes et al., 1988).

Center-Based Settings

Most centers are organized into groups of children who are cared for together by an assigned teacher or group of teachers. In the PCS surveys, center directors were asked about the groups of children who are cared for together for the majority of the time they attend the program. If the survey questions ascertained that children change groups frequently, directors were asked to describe the groups of children who are cared for together during a typical morning or afternoon activity period.

Group Size

For each center, an overall average group size was calculated to summarize the group sizes maintained by the center. Since it is generally agreed that younger children should be cared for in smaller groups, it was also important to determine the average group sizes that programs maintain for children in particular age ranges.

Average and median group sizes in centers fall in the middle to upper end of the ranges considered acceptable by early childhood professionals (Table IV.1).[2] Average group sizes for infants and toddlers younger than age 3 are at or slightly below the recommended maximum group sizes. On average, groups that include only infants comprise 7 children, groups that include only 1-year-olds comprise 10 children, and groups that include only 2-year-olds comprise 12 children. Mixed

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[2] Based on the synthesis of professional recommendations conducted by the National Academy of Sciences Panel on Child Care Policy (Hayes et al., 1990).

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TABLE IV.1

GROUP SIZES IN EARLY EDUCATION AND CARE PROGRAMS

Groups of:	Maximum Acceptable Group Size[a]	Average Group Size	Median Group Size[b]
		Center-Based Settings	
Infants Only	6 to 8	7	6
1-Year-Olds Only	6 to 12	10	9
2-Year-Olds Only	6 to 12	12	12
3- to 5-Year-Olds Only	14 to 20	17	17
Mixed Ages Under 3	n.a.	11	10
Mixed Ages Under School Age	n.a.	17	15
		Regulated Home-Based Settings[b]	
Group Includes:			
Infants	6 to 8	7/4 [c]	6/4 [d]
1-Year-Olds	6 to 12	7/4 [c]	7/4 [d]
2-Year-Olds	6 to 12	7/4 [c]	7/4 [d]
3-Year-Olds	14 to 20	8/4 [c]	7/4 [d]
4-Year-Olds	16 to 20	8/4 [c]	7/4 [d]
5-Year-Olds	16 to 20	8/4 [c]	7/4 [d]

SOURCE: Profile of Child Care Settings (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: For groups including only infants, the maximum group size recommended by professionals is 6 to 8 infants. The average number of infants actually cared for together is 7 infants. Half of all centers with infant-only groups care for an average of 6 or fewer infants per group.

n.a. means not applicable.

[a] Based on the synthesis of professional recommendations conducted by the National Academy of Sciences Panel on Child Care Policy (Hayes et al., 1990).

[b] Group sizes in regulated home-based settings include any children of the provider who are cared for along with other children. All providers caring for a child in the specified age group are included.

[c] The first number refers to the average maximum group size and the second number refers to the average full-time-equivalent group size. Full-time-equivalent group size is defined as the sum of hours in care across children divided by the number of hours that the provider cares for children.

age groups that include only children younger than 3 comprise an average of 11 children. Average group sizes for older children are in the middle or lower end of the ranges of maximum group sizes considered acceptable by early childhood professionals. In the average center, groups of 3- to 5-year-olds comprise an average of 17 children.

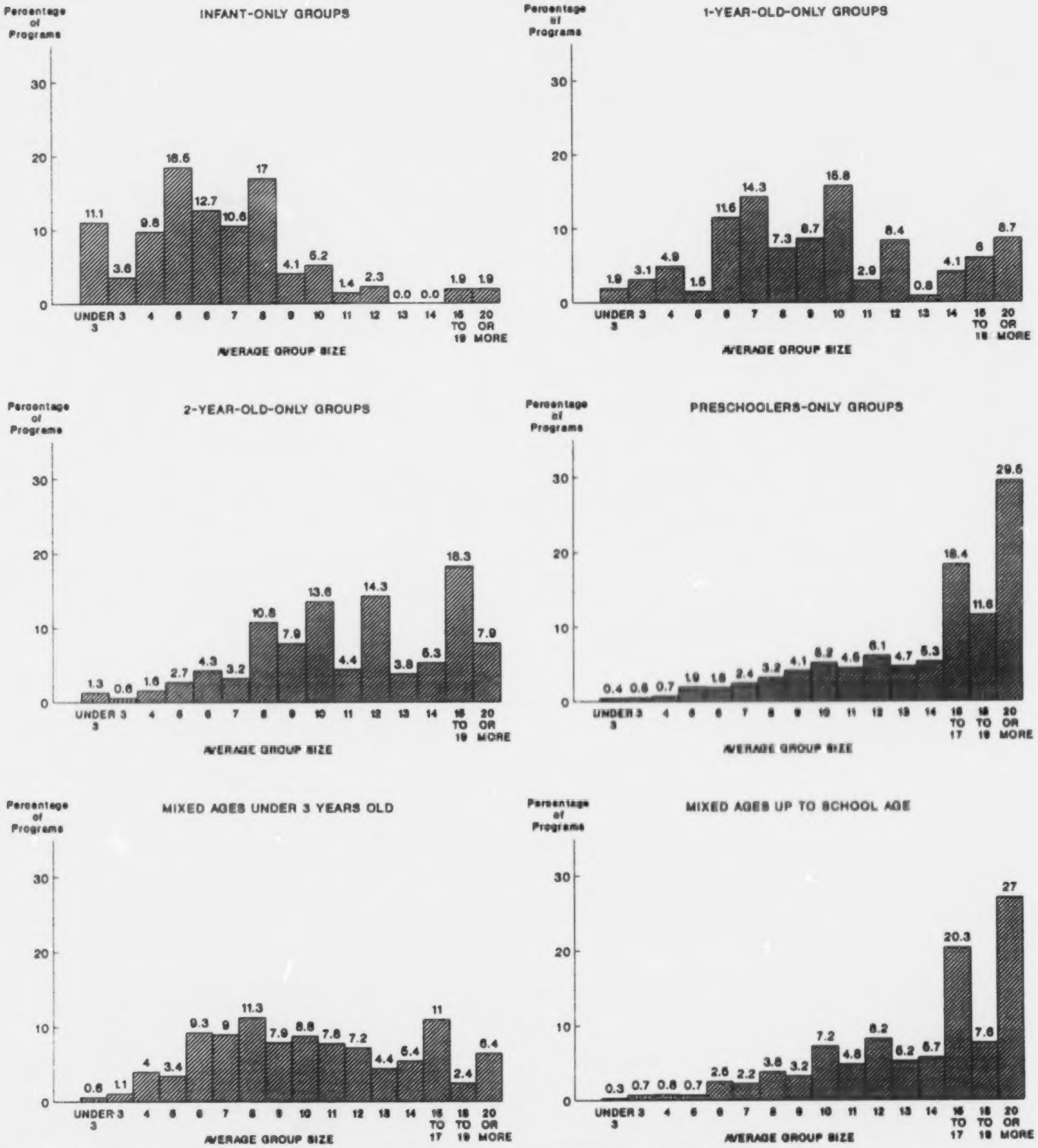
Average group sizes vary considerably across centers. Average group sizes range from less than 3 children to 20 or more children in all age groups (Figure IV.1). However, average group sizes in groups of older children are concentrated more at the higher end of the range, while average group sizes in groups of younger children are spread more evenly over the lower end of the range.

Not surprisingly, average group sizes are consistently smaller in smaller centers, especially in groups of children age 3 or older. For example, average group sizes in groups in which the youngest child is 3 years old range from 13 children in centers serving 30 or fewer children to 16 children in medium-size centers serving 31 to 60 children, and to 18 children in large centers serving more than 60 children.

Average group sizes do not differ significantly among Head Start, public-school-based, religious-sponsored, and other types of centers. Moreover, average group sizes do not differ significantly among all centers according to the proportion of children enrolled who are poor or the extent to which the center cares for children whose fees are paid by a public agency. Thus, according to this measure of the quality of care, disadvantaged children are receiving care that is neither of higher nor of lower quality than the care received by other children.

State regulations, the NAEYC accreditation criteria, and the HEWDCR requirements all include maximum group size recommendations. State regulations for group size, established in 22 of the 36 states represented in the sample, range from an average of 10 children per group for infants to an average of 30 children per group for school-age children (Table IV.2). These criteria are, on average, the least stringent benchmarks for group sizes. The NAEYC accreditation criteria for group sizes range from 8 children per group for infants to 20 children per group for preschool and school-age

FIGURE IV.1
AVERAGE GROUP SIZES IN CENTERS



SOURCE: PROFILES OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).
NOTE: AGE AS OF SEPT 1 WHEN GROUPS LIKELY TO HAVE BEEN FORMED.

TABLE IV.2

COMPARISON OF AVERAGE GROUP SIZES IN CENTERS BY AGE TO HEWDCR REQUIREMENTS, NAEYC CRITERIA, AND STATE REGULATIONS

	Group Sizes				
Age of Children	Average Group Size[a]	Average State Regulation[b]	Range of State Regulations[b]	NAEYC	HEWDCR[c]
0-5 months	9.2	10	4-20	8	6
6-11 months	7.7	10	4-20	8	6
12-17 months	10.1	11	6-20	12	6
18-23 months	11.5	12	6-20	12	6
24-29 months	12.6	16	8-35	12	12
30-35 months	14.9	18	8-35	12	12
36-47 months	16.1	22	12-35	20	18
48-59 months	16.6	23	20-35	20	18
60-71 months	17.5	26	20-35	20	18
72-95 months	19.1	30	20-40	16	20
96+ months	17.0	30	20-40	20	18

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: For groups in which the youngest child is 0 to 5 months old, the average group size maintained by centers is 9.2 children, the average state regulation allows a maximum of 10 children per group, and state regulations allow between 4 and 20 children per group. For this age group, the NAEYC accreditation criteria allow a maximum of 8 children per group, and HEWDCR requirements allow a maximum of 6 children per group.

[a] Based on age of youngest child. Average calculated across all providers, regardless of whether regulation exists in that state.

[b] Includes only states that have that regulation.

[c] Regulations based on enrollment, not attendance.

children. Finally, the HEWDCR group size requirements, which range from 6 children per group for infants to 18 children per group for preschool and school-age children, are the most stringent group-size benchmarks.

A comparison of average group sizes in center-based settings with specific benchmarks for group sizes suggests that, while the average quality of care provided for preschool children age 3 and above is good, the average quality of care provided for infants and toddlers does not meet professional group size recommendations for good-quality care.[3] On average, group sizes in center-based early education and care programs are less than or equal to state regulated maximum group sizes for all age categories, but fail to meet professional recommendations for good-quality care (most notably the HEWDCR requirements) in many age groups, particularly for younger children (Table IV.12). While the average sizes of groups in which the youngest child is age 3 or older meet HEWDCR and NAEYC group-size criteria, the average group sizes for infants and toddlers are well above the maximum group sizes considered acceptable by child development professionals.

Consistent with the higher average group sizes relative to regulations and professional recommendations for group sizes for younger children, lower percentages of programs meet their state's group size regulations and professional group size recommendations for younger children (Table IV.3). The percentage of programs that meet group size recommendations does not vary across different types of providers, with the exception of groups of 3- and 4-year-old children. Public-school-based programs are slightly more likely than other centers to meet state group size criteria for 3- and 4-year-olds.

Finally, centers that do not meet state group size regulations maintain average group sizes that are consistently twice as large as those maintained by programs that do meet the state regulations. Average group sizes among programs that do not meet state regulations range from 14 children per

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[3] All programs are included in the comparisons of quality indicators with the benchmarks for good-quality care. All programs are included in the comparisons with state regulations, because the purpose of the analysis is to assess group sizes in comparison to regulations as benchmarks rather than to assess compliance with the regulations.

TABLE IV.3

PERCENTAGE OF CENTERS THAT MEET PROFESSIONAL RECOMMENDATIONS[a] FOR AVERAGE GROUP SIZES

Age of Children	State Regulations[b]	NAEYC	HEWDCR
0-5 months	73-100 %	55-87 %	32-67 %
6-11 months	83-85	68-65	50-40
12-17 months	72-83	75-79	26-34
18-23 months	79-79	71-74	16-24
24-29 months	81-81	63-68 [c]	63-68 [c]
30-35 months	65-86	47-64 [c]	47-64 [c]
36-47 months	82-84	83-84	73-76
48-59 months	88-86	81-80	66-65
60-71 months	84-94	72-83	65-73
72-95 months	87-92	62-76	47-60
96+ months	95-79	71-51	64-44
Samples Sizes	36-709	90-1,288	90-1,288

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: For groups in which the youngest child is 0 to 5 months old, 73 percent of centers meet their state's group size regulation, 55 percent meet the NAEYC group size requirement, and 32 percent meet the HEWDCR group size requirement. If groups are categorized by the age of the average child, 100 percent of centers meet their state's group size regulatory for children 0 to 5 months old, 87 percent meet the NAEYC group size criterion, and 67 percent meet the HEWDCR group size requirement.

[a] Ranges of percentages of programs that meet the group size recommendations are given. The first number is the percentage of programs meeting recommendations when groups are categorized by the age of the youngest child in the group (the method used in approximately half of the states in the sample). The second number is the percentage of programs that meet the recommendations when groups are categorized by the midpoint of the age range of children in the group. The second number is sometimes less than the first number because some groups fall into different age categories when the midpoint age is used.

[b] Includes only programs located in states with group size regulations.

[c] The NAEYC and HEWDCR group size benchmarks are the same for these age groups.

group for infants to 39 children per group for school-age children, while average group sizes among programs that meet state regulations range from 6 children per group for infants to 16 children per group for school-age children (Table IV.4).

Child-Staff Ratios

When center directors were asked to describe the groups into which their program is organized, they were also asked to describe the numbers and types of staff who are with each group during a typical activity period. For each group, child-staff ratios were constructed as the group size divided by the number of teachers, assistant teachers, and aides who are with the group during a typical activity period.[4] Average child-staff ratios for each center were computed across all groups and for specific age groups.

The average center-based early education and care program maintains an average child-staff ratio of 8.6 children per staff member. Half of all centers maintain an average child-staff ratio of 8.4 children or less per staff member. Average child-staff ratios range from about 1 child per staff member to more than 20 children per staff member.

As was the case with average group sizes, average child-staff ratios in centers are at or above the high end of the range of maximum acceptable ratios recommended by child development professionals.[5] Ratios for infants and toddlers younger than 3 years old are higher on average than the ratios considered acceptable by professionals, while ratios for preschool children age 3 and older are at the high end of the range of maximum acceptable ratios (Table IV.5). The average ratios for groups that include only infants, 1-year-olds, or 2-year-olds are 4.0:1, 6.2:1, and 7.3:1, compared with

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[4] Alternative ratios that included not only teachers, assistant teachers, and aides but also other adults and volunteers who help with each group were also examined. These ratios are consistently but not substantially smaller than the child-staff ratios reported here, and the basic conclusions of the analysis are not affected by which measure of the ratio is considered. For example, the overall average child-staff ratio is 8.6 children per staff member, while the alternative ratio is 7.5 children per adult.

[5] Based on the synthesis of professional recommendations conducted by the National Academy of Sciences Panel on Child Care Policy (Hayes et al., 1990).

TABLE IV.4

AVERAGE GROUP SIZES IN CENTERS BY AGE AND CONFORMANCE WITH STATE REGULATIONS

	Average Group Sizes		
Age of Youngest Child in Group	Conforms With State Regulations	Does Not Conform	Not Subject to Regulation
0-5 months	7.0	13.8	9.6
6-11 months	6.2	14.3	7.8
12-17 months	7.6	16.1	10.2
18-23 months	8.6	20.3	11.9
24-29 months	9.7	18.4	14.0
30-35 months	11.2	21.9	14.9
36-47 months	13.6	27.0	16.1
48-59 months	14.9	28.6	16.7
60-71 months	13.5	37.3	17.4
72-95 months	16.3	38.7	18.9
96+ months	14.7	-- [a]	18.0
Sample Sizes	34-580	15-133	54-579

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: For groups in which the age of the youngest child is 0 to 5 months, the average group size in centers that conform with their state's group size regulation is 7.0 children; the average group size in centers that do not conform with their state's regulation is 13.8 children; and the average group size in centers that are not subject to a state group size regulation is 9.6 children.

[a] Small sample size.

TABLE IV.5

CHILD-STAFF RATIOS IN EARLY EDUCATION AND CARE PROGRAMS

Groups of:	Maximum Acceptable Ratios[a]	Average Ratio	Median Ratio
		Center-Based Settings[b]	
Infants Only	4:1	4:1	4:1
1-Year-Olds Only	4:1	6.2:1	6:1
2-Year-Olds Only	3:1 to 6:1	7.3:1	7:1
3- to 5-Year-Olds Only	5:1 to 10:1	9.9:1	9.2:1
Mixed Ages Under Age 3	n.a.	6.2:1	6:1
Mixed Ages Under School Age	n.a.	8.6:1	8:1
		Regulated Home-Based Settings[c]	
Group Includes:			
Infants	4:1	5.9:1 / 3.8:1	5.9:1 / 3.8:1
1-Year-Olds	4:1	6.2:1 / 3.9:1	6:1 / 3.9:1
2-Year-Olds	3:1 to 6:1	6.2:1 / 3.9:1	6:1 / 3.9:1
3-Year-Olds	5:1 to 10:1	6.4:1 / 4.0:1	6:1 / 4.0:1
4-Year-Olds	7:1 to 10:1	6.7:1 / 4.1:1	6:1 / 4.1:1
5-Year-Olds	7:1 to 10:1	6.5:1 / 3.8:1	6:1 / 3.8:1

SOURCE: Profile of Child Care Settings (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: For groups including only infants, the maximum child-staff ratio recommended by professionals is 4 infants to 1 staff member. The average ratio maintained by centers in infant-only groups is 4 to 1, and half of all centers maintain ratios of 4 to 1 or less in infant-only groups.

n.a. means not applicable.

[a] Based on the synthesis of professional recommendations conducted by the National Academy of Sciences Panel on Child Care Policy (Hayes et al., 1990).

[b] The child-staff ratio in centers is the average across groups of the group size divided by the number of teachers, assistant teachers, and aides who are with the group during a typical activity period.

[c] Ratios in regulated home-based settings include any children of the provider who are cared for along with other children. They also include helpers who assist with child care. The first ratio is the average maximum child-staff ratio and the second number is the average full-time-equivalent child-staff ratio. The full-time-equivalent child-staff ratio is the full-time-equivalent group size divided by the full-time-equivalent providers, where the full-time-equivalent group size is defined as the sum of hours in care across children divided by the hours that the provider cares for children, and the full-time-equivalent staff is defined as the sum of the number of hours of the provider and helpers divided by the number of hours of care provided.

maximum recommended ratios of 4:1, 4:1, and 6:1, respectively. The maximum recommended ratio for preschool children age 3 and older is 10:1, while the average actual ratio is 9.9:1. As is true with average group sizes, average child-staff ratios in specific age groups vary over a large range, from 1:1 to more than 20:1 (Figure IV.2).

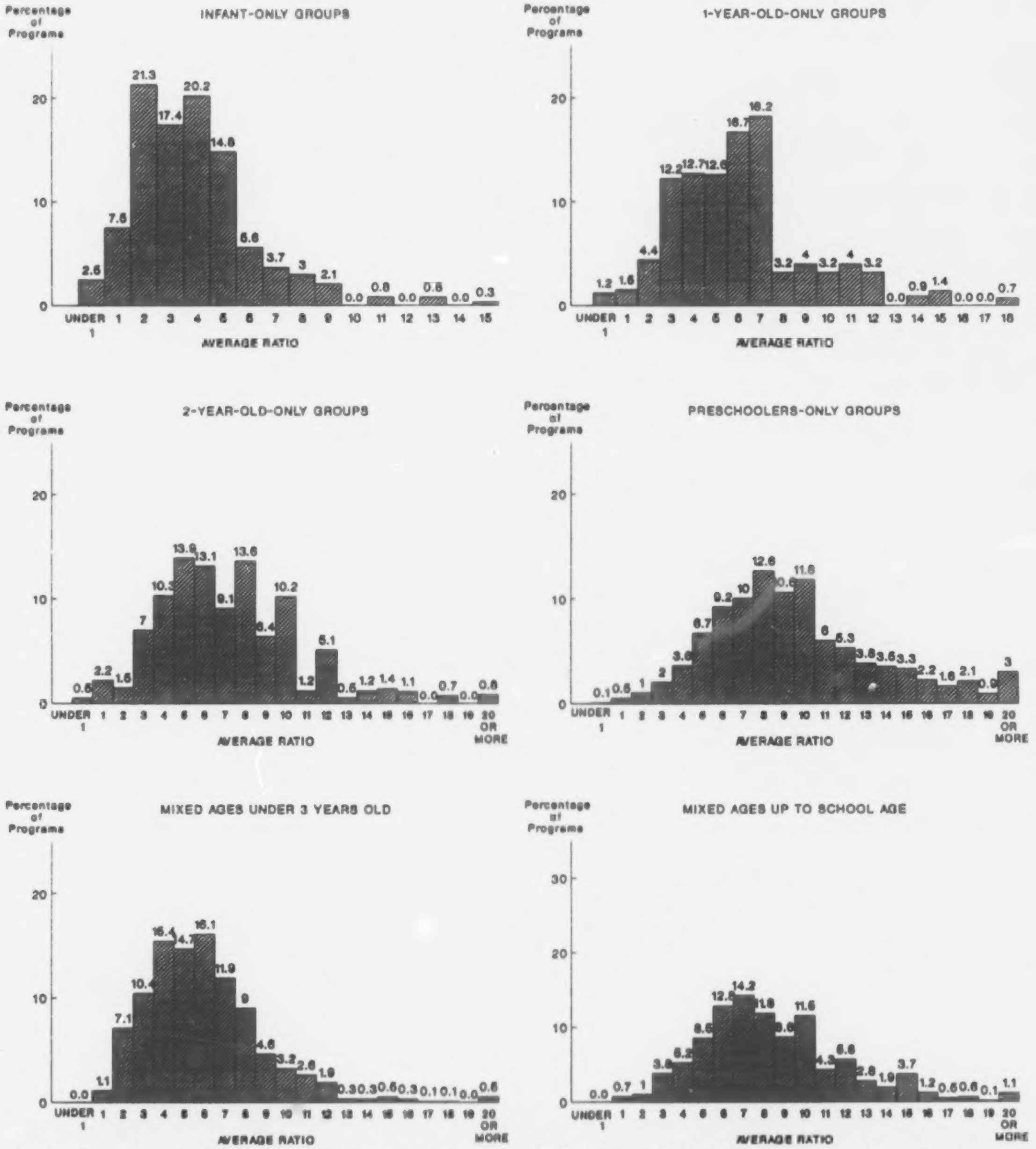
The fact that infants and toddlers in the average center are being cared for in relatively large groups with child-staff ratios that exceed professional recommendations, along with evidence that infant and toddler care may be in short supply (Chapter III), suggests that programs and parents may be accepting lower-quality care in order to make infant and toddler care financially viable and to meet parents' needs for the care of infants and toddlers. There is no evidence based on utilization rates and group sizes that similar pressure is being exerted on the quality of care provided to preschool children.

Child-staff ratios are consistently lower in smaller centers. Centers serving 30 or fewer children maintain an average ratio of 7.3 children per staff member, compared with 8.6 children per staff member in centers serving 31 to 60 children and 9.6 children per staff member in centers serving more than 60 children. These differences are evident for all age groups.

Ratios are consistently higher in for-profit programs that are part of national or local chains than in other types of programs. The overall average child-staff ratio maintained by for-profit chain programs is 9.8 children per staff member, compared with 8.3, 8.6, and 8.4 children per staff member in independent for-profit, religious-sponsored nonprofit, and other nonprofit centers, respectively. The differences in ratios are greatest in groups in which the youngest child is age 3 or older. For example, in groups in which the youngest child is 3 years old, the average ratio is 11.0 children per staff member in for-profit chain programs, compared with 8.4 to 9.0 children per staff member in other types of programs.

State regulations, the NAEYC accreditation criteria and the HEWDCR requirements all include maximum child-staff ratio recommendations. Average state regulations for child-staff ratios range

FIGURE IV.2
AVERAGE CHILD-STAFF RATIO IN CENTERS



SOURCE: PROFILES OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).
NOTE: AGE AS OF SEPT 1 WHEN GROUPS LIKELY TO HAVE BEEN FORMED.

from 5 children per staff member for infants to 21 children per staff member for school-age children (Table IV.6). The NAEYC criteria for child-staff ratios range from 4 children per staff member for infants to 12 children per staff member for school-age children. The HEWDCR ratio requirements are the most stringent standards, particularly for younger children, and range from 3 children per staff member for infants to 18 children per staff member for school-age children.

Comparisons of average child-staff ratios by age in centers to state regulations and professional recommendations suggest that, according to this indicator of quality, the average quality of care is adequate but does not meet the strictest professional recommendations for high-quality care. Average child-staff ratios in center-based early education and care programs are less than or equal to average state regulations for all age groups (Table IV.6). However, average child-staff ratios in center-based settings slightly exceed NAEYC criteria for most age categories. Moreover, average child-staff ratios in centers are significantly higher than the HEWDCR ratio requirements, particularly for younger children. On average, child-staff ratios in centers meet HEWDCR requirements only for 3-year-old children and children age 6 and older.

The percentage of center-based programs that meet regulations and professional child-staff ratio recommendations is generally lowest for groups of younger children (Table IV.7). The percentages of centers that meet regulations and professional recommendations also vary across types of centers. Head Start and public-school-based programs are more likely than other centers to meet NAEYC criteria for 3- and 4-year-old children, and public-school-based programs are also more likely to meet the HEWDCR requirements, particularly for 4-year-old children. In addition, for most age groups, nonprofit centers and for-profit centers that are independently owned and operated are more likely than for-profit centers that are part of local or national chains to meet child-staff ratio requirements.

The differences in average child-staff ratios between programs that meet state child-staff ratio requirements and those that do not are quite large. Programs that do not meet state regulations are

TABLE IV.6

COMPARISON OF AVERAGE CHILD-STAFF RATIOS IN CENTERS BY AGE WITH HEWDCR REQUIREMENTS, NAEYC CRITERIA, AND STATE REGULATIONS

	Child-Staff Ratios				
Age Group	Range of State Regulations[a]	Average State Regulation[b]	Actual Mean[b]	NAEYC	HEWDCR[c]
0-5 months	3-8	4.7	4.4 / 4.1	4	3
6-11 months	3-8	4.8	4.0 / 3.7	4	3
12-17 months	4-8	5.4	5.7 / 5.2	5	3
18-23 months	4-10	6.0	6.3 / 5.8	5	3
24-29 months	4-13	8.7	7.2 / 6.6	6	4
30-35 months	4-13	9.7	7.8 / 7.0	6	4
36-47 months	7.5-17	11.9	8.8 / 7.7	10	9
48-59 months	7.5-20	14.2	9.7 / 8.6	10	9
60-71 months	7.5-25	17.0	10.8 / 10.2	10	9
72-95 months	10-26	20.4	11.9 / 11.3	12	16
96+ months	10-26	20.8	11.7 / 10.4	12	18

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: For groups in which the youngest child is 0 to 5 months old, the average child-staff ratio maintained by centers is 4.4 to 1 and the average child-adult ratio is 4.1 to 1. The state regulation faced by the average center allows 4.7 children to 1 staff member, but regulated ratios range from 3 to 1 to 8 to 1 for groups in which the youngest child is 0 to 5 months. The NAEYC accreditation criteria allow 4 children per staff member, and the HEWDCR requirements allow 3 children to 1 staff member.

[a] Only states which have regulation.

[b] Based on age of youngest child. The first number is the average child-staff ratio; the second number is the average child-adult ratio.

[c] Based on enrollment, not attendance.

TABLE IV.7

PERCENTAGE OF CENTERS THAT MEET PROFESSIONAL RECOMMENDATIONS[a] FOR AVERAGE CHILD-STAFF RATIOS

Age of Children	State Regulations	NAEYC	HEWDCR
0-5 months	82-92 %	58-84 %	28-56 %
6-11 months	83-88	65-62	40-31
12-17 months	67-80	50-63	15-25
18-23 months	68-81	41-49	11-15
24-29 months	80-81	43-49	17-22
30-35 months	71-84	37-45	13-16
36-47 months	83-85	75-76	61-63
48-59 months	88-88	68-70	52-55
60-71 months	88-91	56-65	45-52
72-95 months	91-95	60-71	79-86
96+ months	95-91	58-53	86-82
Sample Sizes	80-1,277	88-1,283	88-1,283

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc. 1990).

NOTE: The table reads: For groups in which the youngest child is 0 to 5 months old, 82 percent of centers meet their state's ratio regulation, 58 percent meet the NAEYC-recommended ratio, and 28 percent meet the HEWDCR ratio requirement. If groups are categorized by the age of the average child, 92 percent of centers meet their state's ratio regulation, 84 percent meet the NAEYC ratio criterion, and 56 percent meet the HEWDCR ratio requirement.

[a] Ranges of percentages of programs that meet the standards are given. The first number is the percentage of programs meeting standards when groups are categorized by the age of the youngest child in the group (the method used in approximately half of the states in the sample). The second number is the percentage of programs that meet the standards when groups are categorized by the midpoint of the age range of children in the group. The second number is sometimes less than the first number because some groups fall into different age categories when the midpoint age is used.

likely to have approximately twice as many children under the care and supervision of a single staff member than programs that do meet state ratio criteria (Table IV.8).

Regulated Home-Based Settings

Group Size

In home-based settings, all children are usually cared for together by the provider. To the extent that all children are also in care at the same time, group size is equivalent to program size. However, in many cases, some children are in care only part-time, and program size represents the *maximum* group size maintained by the home-based provider. This measure of group size is the one most commonly used in state regulations.

An alternative measure of group size that takes into account the hours that children are in care is the number of full-time-equivalent (FTE) children[6] cared for by the provider. The FTE group size measure represents an "average" group size maintained by the provider and may be a more accurate indicator of the overall quality of care provided in that setting.

The average maximum group size in regulated home-based settings is 7 children, including an average of 1 child of the provider and 6 children from other families. Groups in regulated home-based settings that include infants or toddlers are smaller by 1 child on average than groups that include older children. When average maximum age-specific group sizes are calculated by including all providers who care for children in the specified age group, average maximum group sizes vary little, ranging from 7 children in settings that include infants or toddlers to 8 children in settings that include preschool or school-age children (Table IV.1).

The average FTE group size, taking into account the hours that children are in care, is considerably smaller than the average maximum group size (4 versus 7 children, including the children of the provider). The lower average FTE group size implies that not all children are with the

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[6] The number of full-time-equivalent children is defined as the sum of hours in care across children divided by the number of hours that the provider cares for children.

TABLE IV.8

AVERAGE CHILD-STAFF RATIOS IN CENTERS BY AGE AND CONFORMANCE WITH STATE REGULATIONS

	Average Child-Staff Ratios		
Age of Children	Conforms With State Regulations	Does Not Conform	Not Subject to Regulations[a]
0-5 months	3.9:1	7.0:1	3.9:1
6-11 months	3.4:1	7.0:1	3.9:1
12-17 months	4.5:1	8.1:1	4.7:1
18-23 months	5.1:1	9.0:1	4.9:1
24-29 months	6.6:1	9.9:1	7.4:1
30-35 months	6.6:1	10.4:1	---
36-47 months	7.8:1	13.8:1	6.6:1
48-59 months	8.9:1	15.6:1	11.9:1
60-71 months	9.5:1	20.0:1	9.9:1
72-95 months	10.9:1	23.0:1	9.0:1
96+ months	11.6:1	--[a]	8.0:1
Sample Sizes	75-1,070	33-207	3-9

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: For groups in which the age of the youngest child is 0 to 5 months, the average child-staff ratio in centers that conform with their state's ratio regulation is 3.9 to 1; the average ratio in centers that do not conform with their state's ratio regulation is 7.0 to 1; and the average ratio in centers that are not subject to a ratio regulation is 3.9 to 1.

[a] Sample sizes are small.

provider at the same time during significant portions of the day. The average FTE group size does not vary significantly by age.

Average maximum group sizes in regulated home-based settings vary significantly among regions of the country, reflecting the fact that smaller providers in some areas are not required to be licensed or registered. Average group sizes are largest in the Midwest and West (8 and 7 children, respectively) and smallest in the South and Northeast (6 and 5 children, respectively). This pattern characterizes every age group, from infants to school-age children. Groups that include infants have an average of 8 children in the Midwest, compared with only 5 children in the Northeast. Similarly, groups that include 4-year-olds in the Midwest have an average of 9 children, compared with only 6 children in the Northeast. These regional differences in group sizes are also apparent in the average FTE group size, but the magnitude of the differences is smaller.

As with the group size benchmarks for centers, state requirements and HEWDCR requirements for maximum group size in family day care settings also establish benchmarks for different levels of quality of care.[7] State regulations, which establish maximum group sizes that may or may not include the provider's own children, range from an average of 5 to 7 children per group for groups with no additional child care helpers to 12 children per group in settings with multiple caregivers (Table IV.9).[8] HEWDCR requirements for maximum group size include the provider's own children and vary according to the ages of the children in care. The HEWDCR requirements range from 3 to 6 children per group in groups for whom no additional child care helpers are present to 10 to 12 children per group in settings with multiple caregivers.

Average group sizes in regulated home-based settings are smaller than the average maximum group sizes specified in state regulations. Average group sizes range from 5 to 6 children per group in settings that have no additional child care helpers and average 8 children per group in settings with at least one additional child care helper (Table IV.9). A relatively high percentage of regulated home-based providers meet their state group size criteria (61 to 83 percent). Among those that do not meet their state regulations, average group sizes are 25 to 50 percent above the maximum levels stipulated by the state requirements.

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[7] NAEYC has not established accreditation standards for family day care.

[8] Differences in state regulations based on the age ranges of the children in care were not accounted for in this analysis.

While approximately three-quarters of all regulated home-based settings meet state regulations, slightly more than half of all regulated home-based providers meet the HEWDCR group size requirements for high-quality care (Table IV.10). Providers who serve children both younger and older than age 2 are much less likely to meet HEWDCR requirements than are providers who serve children in only one of the age groups (Table IV.10). As with state regulations, the average group sizes maintained by those who do not meet HEWDCR requirements are nearly twice as high as the average group sizes maintained by those who do meet the HEWDCR requirements.

The extent to which regulated home-based providers meet both state regulations and HEWDCR requirements for maximum group size differs by region. Conformance with both state regulations and HEWDCR requirements is significantly lower in the Midwest than in the Northeast, South, or West (Table IV.11). These differences appear to be due to reasons other than differences in the strictness of state regulations or the degree of enforcement through inspections. On average, state regulations in the Midwest are comparable to or less stringent than regulations in the Northeast and West. Moreover, on average, providers in the Midwest report a similar number of inspections by licensing authorities as do providers in the Northeast and South.

Ratios

Child-staff ratios in regulated home-based settings were calculated by dividing group size (including the provider's own children) by the number of staff, where the number of staff includes the provider plus any partners or helpers over age 13 that help the provider care for children. Because these helpers provide care for relatively few hours per week (10 hours per week or less in

TABLE IV.9

AVERAGE STATE REGULATIONS, GROUP SIZE, AND LEVELS OF CONFORMANCE IN HOME-BASED SETTINGS

	Average State Regulation	Average Group Size	Percentage of Providers in Conformance with State Regulations	Average Group Size of Those Providers in Conformance	Average Group Size of Those Providers Not in Conformance
WITHOUT ADDITIONAL CHILD CARE HELPERS[a]					
Group Size, Not Including Provider's Children	5.4	5.3	77 %	4.5	8.5
Group Size Includes Provider's Children	6.7	5.9	69	4.8	8.4
WITH AN ADDITIONAL CHILD CARE HELPER[b]					
Group Size, Not Including Provider's Children	12.0	8.0	61	7.6	15.0
Group Size Includes Provider's Children	11.9	8.3	83	8.1	15.2

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The tables reads: The average regulated family day care provider without helpers is allowed by state regulations to care for 5.4 children (not including the provider's own children) and actually cares for 5.3 children. 77 percent of providers without helpers conform to their state's group size regulation. The average group size maintained by providers in conformance with their state regulations is 4.5 children, while the average group size maintained by providers operating out of conformance with their state's regulation is 8.5 children.

[a] No helpers over the age of 13 who assist with child care responsibilities.

[b] At least one helper over the age of 13 who assists with child care responsibilities.

TABLE IV.10

HEWDCR STANDARDS, AVERAGE GROUP SIZE, AND LEVELS OF CONFORMANCE WITH HEWDCR REQUIREMENTS IN HOME-BASED SETTINGS BY AGE RANGE OF CHILDREN

	HEWDCR Group Size Requirement	Average Group[a] Size	Percentage of Providers in Conformance with HEWDCR Requirements	Average Group Size of Those in Conformance	Average Group Size of Those Not in Conformance
WITHOUT ADDITIONAL CHILD CARE HELPERS:					
All Children Under Age 2	3	2.7	77	2.2	4.6
All Ages	5	6.3	37	4.0	7.7
All Children Age 2 and Above	6	5.3	73	4.2	8.2
WITH AN ADDITIONAL CHILD CARE HELPER					
All Ages	10	8.4	76	6.8	13.4
All Children Age 2 and Above	12	8.1	90	7.2	15.2

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: The table reads: Regulated family day care providers without helpers who care for children who are all under age 2 would be required by the HEWDCR to maintain group sizes of 3 children or less. On average, they care for 2.7 children, and 77 percent meet the HEWDCR requirement. The average group size maintained by providers who meet the HEWDCR requirement is 2.2 children, while the group size maintained by providers who do not meet the HEWDCR requirement is 4.6 children.

[a] Includes providers children under 6 years of age.

TABLE IV.11

AVERAGE STATE GROUP SIZE REGULATIONS AND LEVELS OF CONFORMANCE WITH STATE REGULATIONS AND HEWDCR REQUIREMENTS IN HOME-BASED SETTINGS, BY REGION

	Northeast	South	Midwest	West
AVERAGE STATE REGULATION FOR GROUP SIZE:				
No additional child care helpers	6.1	7.7	6.2	6.3
With an additional child care helper	7.5	14.1	12.8	11.9
PERCENTAGE IN CONFORMANCE:				
With State Regulations	83	82	46	79
With HEWDCR Requirements	66	58	38	61
Average Number of Inspections By Licensing or Accreditation Agencies Over Last Two Years (or Since Program Began)	2.7	2.9	2.5	1.5

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc. 1990).

NOTE: The table reads: In the Northeast, the average state regulation for group size for family day care providers with no helpers is 6.1 children. For providers with helpers, the average state regulation for group size is 7.5 children. 83 percent of providers in the Northeast comply with their state's group size regulation, and 66 percent comply with HEWDCR group size requirements. Family day care providers in the Northeast were inspected an average of 2.7 times in the past 2 years.

more than half of regulated home-based settings in which there are helpers), the number of helpers was specified as the number of full-time-equivalent helpers. Two alternative ratios corresponding to the two alternative measures of group size (maximum group size and FTE group size) were also examined.

The average maximum child-staff ratio maintained in regulated home-based settings is 5.9 children per staff member. Maximum child-staff ratios range from as few as 1 child per staff member to as many as 17 children per staff member. Home-based providers whose children include infants or toddlers generally maintain smaller child-staff ratios than providers with older children. Providers who care for infants maintain an average ratio of 5.9 children per staff member, while providers whose children include at least one 4-year-old maintain an average ratio of 6.7 children per staff member (Table IV.5).

Because FTE group sizes are smaller than the maximum group sizes, FTE child-staff ratios are also smaller than maximum child-staff ratios. The average FTE ratio in regulated family day care settings is 3.7 children per staff member and ranges from less than 1 child per staff member to 9 children per staff member. The average FTE ratio varies little by age.

Maximum child-staff ratios in regulated home-based settings are consistently higher in the Midwest and in rural areas than in the other regions and areas of the country. The average child-staff ratio in the Midwest is 6.8 children per staff member, compared with 5.2, 5.4, and 5.7 in the Northeast, South, and West, respectively. As was the case with group size, these regional differences in ratios at least partly reflect regional differences in the extent to which smaller family day care providers are required to be licensed or registered.

Although regulated home-based providers in the Midwest also maintain higher FTE child-staff ratios, the differences in FTE ratios by region are much smaller than the differences in maximum ratios. This finding suggests that part of the regional differences in the number of children enrolled reflects differences in part-time and full-time care rather than differences in the quality of care provided.

Regulated home-based providers who are members of minority groups maintain average child-staff ratios that are smaller than those maintained by nonminority providers. Hispanic and black non-Hispanic providers maintain ratios of 4.8 and 5.0 children per staff member, respectively, compared with an average ratio of 6.1 children per staff member maintained by white non-Hispanic providers.

THE QUALIFICATIONS OF CAREGIVERS

It is generally agreed that years of schooling and specialized training of caregivers bear a positive relationship to children's development (Phillips and Howes, 1987). Studies have found that caregivers who are trained in early education or child development exhibit more helpful behavior and spend more time with children (Divine-Hawkins, 1981), provide greater social and intellectual stimulation (Travers et al., 1980), and foster better intellectual and language development outcomes among children (Clarke-Stewart, 1987). Similar effects have been found for providers with more years of schooling (Phillips and Howes, 1987; and Whitebook et al., 1989). However, little is known about the relative importance of different types of training or educational curricula.

There is little evidence that child-care job experience leads to more positive caregiver-child interactions or better child outcomes (Hayes et al, 1990). Although some studies have found positive effects of the experience of caregivers, other studies have found neutral or negative effects. For example, one study found that greater child-care job experience is associated with less cognitive and social stimulation of infants and more apathy among infants and toddlers (Ruopp et al., 1979).

Center-Based Settings

The vast majority of preschool teachers[9] in center-based early education and care programs have had some special training in child care or early education (93 percent), although the source of the training varies by type of center (Table IV.12). In general, the most commonly reported types of child-related training among teachers are child-care courses or workshops (56 percent), child development or psychology courses (36 percent), teacher training (36 percent), and other education training (41 percent).

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[9] Does not include assistant teachers or aides.

Virtually all teachers in Head Start and public-school-based programs have received special child-related training, compared with 93 percent of teachers in other types of centers. Head Start teachers are significantly more likely than teachers in other centers to have received Child Development Associate (CDA) training, child development or psychology courses, training provided by a government or resource and referral agency, or social services training (Table IV.13). Teachers in public-school-based programs are substantially more likely than teachers in other settings to have received teacher training or other education training. Teachers in religious-sponsored and Head Start programs are more likely than teachers in other settings to have attended child-care courses or workshops.

Teachers in most centers received 10 hours or more of in-service training during the year prior to the survey (90 percent). The most common sources of training were local community colleges and training sponsored by the program.

Center-based teachers are relatively well-educated. In the average center-based early education and care program, nearly half of all teachers have completed college (47 percent), and an additional 13 percent have received a two-year college degree (Figure IV.3). Most of the remaining teachers have a CDA credential or some college experience but no degree (12 and 15 percent, respectively). Only 14 percent of teachers do not have any education beyond high school.

The average number of years of schooling of teachers is highest in the Northeast and in urban areas, and lowest in the South and in rural areas. In the Northeast, two-thirds of the teachers in the average center-based program have completed college, and only 4 percent have no formal education beyond high school. In contrast, one-third of the teachers in the average center-based program in

TABLE IV.12

COMPARISON OF AVERAGE CHILD-STAFF RATIOS IN CENTER-BASED PROGRAMS BY AGE WITH HEWDCR, NAEYC, AND STATE REGULATIONS

	Child-Staff Ratios				
Age Group	Actual Mean[a]	Average State Regulation[b]	Range of State Regulations[b]	NAEYC	HEWDCR[c]
0-5 months	4.4/4.1	4.7	3-8	4	3
6-11 months	4.0/3.7	4.8	3-8	4	3
12-17 months	5.7/5.2	5.4	4-8	5	3
18-23 months	6.3/5.8	6.0	4-10	5	3
24-29 months	7.2/6.6	8.7	4-13	6	4
30-35 months	7.8/7.0	9.7	4-13	6	4
36-47 months	8.8/7.7	11.9	7.5-17	10	9
48-59 months	9.7/8.6	14.2	7.5-20	10	9
60-71 months	10.8/10.2	17.0	7.5-25	10	9
72-95 months	11.9/11.3	20.4	10-26	12	16
96+ months	11.7/10.4	20.8	10-26	12	18

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Based on age of youngest child. The first number is the average child-staff ratio; the second number is the average child-adult ratio.

[b] Only states which have regulation.

[c] Based on enrollment, not attendance.

TABLE IV.13

EDUCATION AND TRAINING OF TEACHERS IN CENTER-BASED PROGRAMS,[a] BY TYPE OF PROGRAM

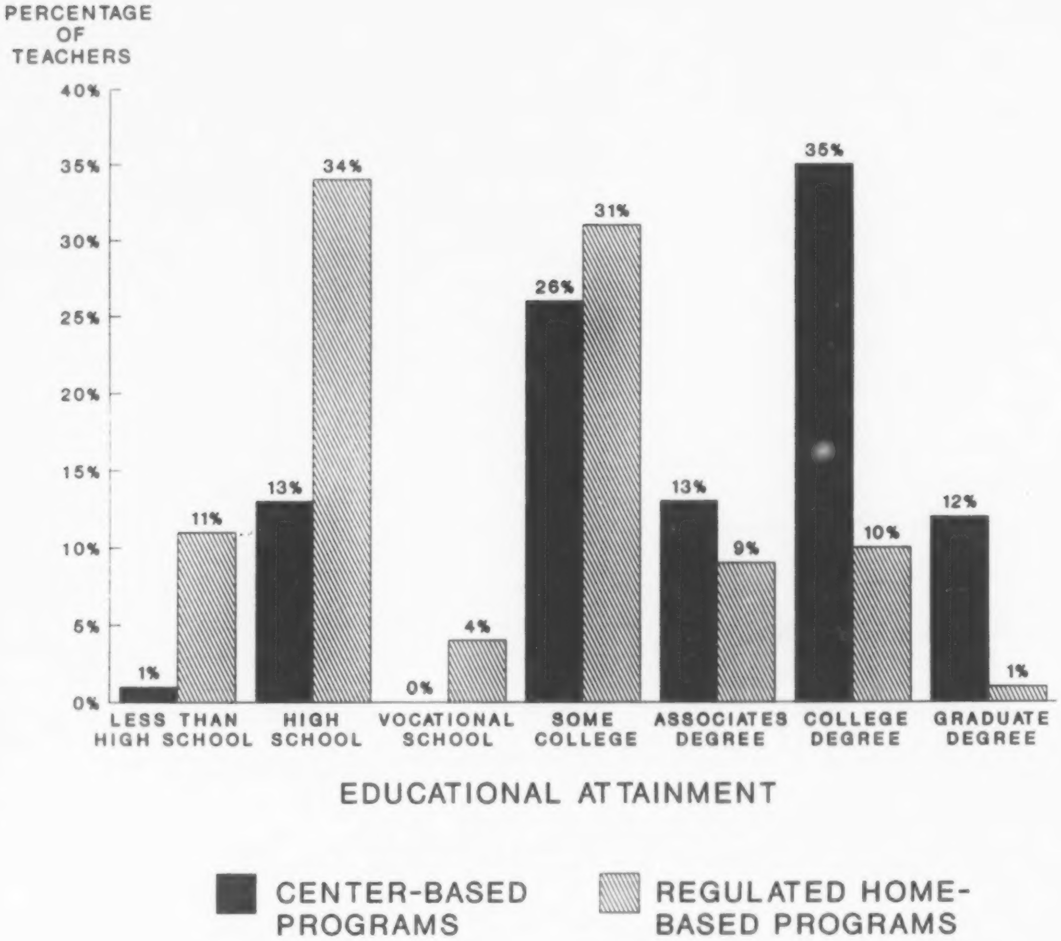
	Type of Center-Based Program			
	Head Start	Public School-Based	Religious-Sponsored	Other
Average Percentage of Teachers Who Have Completed:				
Graduate Degree	10%	38%	8%	11%
College Degree	35	50	42	31
Associates Degree	18	6	11	13
Some College	7	4	16	17
CDA/Vocational Program	29	1	8	11
High School or GED	1	2	14	16
Less Than High School	0	0	0	1
Percentage of Teachers Who Have Had:				
CDA Training	59	19	11	25
Teacher Training	34	51	37	35
Other Education Training	46	62	39	40
Child Care Workshops or Courses	62	49	62	54
Child Development or Psychology Courses	47	38	38	36
Nurses or Health Training	30	19	25	26
Training by a Resource and Referral or Government Agency	18	10	6	5
Social Service Training	13	3	1	4
Other Training	5	7	11	6
Sample Size (Centers)	231	255	240	1,087

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Excluding programs that serve primarily handicapped children and programs that do not serve preschool children age 3 to 5.

FIGURE IV.3

EDUCATIONAL QUALIFICATIONS OF TEACHERS IN EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

the South have completed college, and one-quarter have no formal education beyond high school.

Teachers in public-school-based programs have substantially more formal education than teachers in other types of programs. Approximately 88 percent of teachers in the average public-school-based program have completed college, compared with 42 to 50 percent of teachers in other types of programs (Table IV.13). Virtually all teachers in public-school-based programs have some formal education beyond high school, while approximately 15 percent of teachers in other types of programs have no formal education beyond high school.

Teachers in for-profit centers have less formal education on average than do teachers in nonprofit centers. Approximately one-third of the teachers in the average for-profit center have completed college, compared with half of the teachers in the average nonprofit center. Similarly, approximately 20 percent of the teachers in the average for-profit program have no formal education beyond high school, compared with 14 percent of the teachers in religious-sponsored nonprofit centers and 7 percent of the teachers in other nonprofit centers.

On average, teachers in center-based early education and care programs have 8 years of experience, 5 years of which are in the program for which they currently work. However, experience is wide-ranging (0 to 50 years), and half of all teachers in center-based settings have 6 or fewer years of experience, 3 of which are with their current employer.

Regulated Home-Based Settings

Regulated family day care providers are less likely than teachers in center-based programs to have had some child-related training. About two-thirds of regulated family day care providers (64 percent) have received some training specific to child care or early education, primarily from child care courses or workshops (43 percent) and courses in child development or psychology (28 percent) (Table IV.12). The least common forms of training are CDA training (6 percent), resource and referral and government-sponsored training (5 percent), and training in social services (2 percent).

Regulated home-based providers in the South are less likely than providers in other regions to have received specialized training (53 versus 66, 67, and 67 percent in the Midwest, West, and Northeast, respectively). Regulated family day care providers in rural areas are somewhat less likely than those in suburban and urban areas to have received specialized training (56 versus 62 and 69 percent, respectively).

Regulated home-based providers who are sponsored are much more likely to have received specialized training than are their nonsponsored counterparts (77 versus 60 percent). Providers who enroll children whose parents are on welfare are more likely to have received specialized training than those who do not enroll these children (73 versus 61 percent).

Regulated home-based early education and care providers have also received less formal education than have teachers in center-based settings. Approximately 11 percent of regulated home-based providers have completed college, 44 percent have had some formal schooling beyond high school, 34 percent have a high school diploma but no additional education, and 11 percent have not graduated from high school (Figure IV.3).

Providers in the South are much less likely than those located in other regions to have completed high school (28 percent have less than a high school education, versus 9, 6, and 5 percent in the Midwest, West, and Northeast, respectively). In contrast, providers in the West and Northeast are better educated; approximately 45 percent of providers in these regions have completed at least two years of college, compared with only one-quarter of the providers in the South and Midwest. Regulated family day care providers in rural areas are less educated; 54 percent have a high school education or less, compared with 47 percent in suburban areas and 41 percent in urban areas. Similarly, only 18 percent of rural providers have two or more years of college (including a college or graduate degree), compared with 27 percent of suburban providers and 31 percent of urban providers. Regulated home-based providers who are sponsored are somewhat better educated. For example, 35 percent of sponsored providers have received two or more years of college, including receipt of a college degree, compared to 23 percent of nonsponsored providers. Regulated home-based providers who care for children whose parents are on welfare are more likely than those who do not care for children of welfare recipients to have only a high school diploma or less (54 percent versus 42 percent).

THE STABILITY OF CAREGIVERS

Child development research indicates that children require enduring relationships with particular caregivers. Children who have experienced multiple changes in early education and care arrangements have been found to make insecure attachments to their mothers and, in the longer-run, to adjust poorly in school (Hayes et al., 1990; and Howes and Stewart, 1987; Howes, 1988). Moreover, several studies indicate that the consistent assignment of groups of children to particular caregivers in center-based early education and care settings leads to more secure attachments (Hayes et al., 1990).

During the year prior to the survey, the average center-based early education and care program experienced the loss of 25 percent of its teachers (Table IV.14).[10] However, the turnover of teachers was concentrated in approximately half of all centers. The average turnover rate in centers that experienced some turnover was 50 percent.[11]

Teacher turnover rates are similar in different regions and areas of the country, but they are higher in for-profit centers, particularly those that are part of chains, than in nonprofit centers. The average rate of turnover in for-profit centers that are part of local or national chains is 39 percent,

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[10] Annual teacher turnover is defined as the number of teachers who left the center during the past 12 months divided by the total number of teachers employed by the center. This measure does not include assistant teachers and aides.

[11] These turnover rates are lower than those reported by Whitebook et al. (1989). Their sample of centers, which is not nationally representative, consists of centers located in five metropolitan areas. In addition, their measure of turnover includes all teaching staff, not just teachers. With this sample of centers, Whitebook et al. found the average annual rate of turnover was 41 percent, and only 7 percent of centers experienced no staff turnover. Among teachers and teacher-directors, the annual turnover rate was 35 percent.

TABLE IV.14

ANNUAL TEACHER TURNOVER IN CENTERS[a]

Type of Program	Percentage of Programs That Experienced Teacher Turnover[b]	Average Teacher Turnover[b] in Programs With Turnover	Average Teacher Turnover[b] in All Programs
All Programs	50 %	50 %	25 %
Programs in:			
Northeast	43	56	24
South	53	47	25
Midwest	44	55	24
West	55	47	26
Programs in:			
Urban Areas	51	49	25
Suburban Areas	52	48	25
Rural Areas	42	55	23
Nonprofit Programs			
Head Start Programs	31	64	20
Public school-based programs	23	60	14
Religious-sponsored programs	54	41	23
Other sponsored programs	53	47	25
Independent programs	52	48	25
For-Profit Programs			
Chain programs	77	50	39
Independent programs	50	53	27
Sample Size	1,773	832	1,773

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Excludes programs that serve primarily handicapped children and programs that do not serve preschool children age 3 and above.

[b] Teacher turnover is defined as the number of teachers who left the program during the past 12 months divided by the total number of teachers employed by the program. This measure does not include assistant teachers and aides.

compared with 27 percent in independent for-profit centers, 23 percent in religious-sponsored nonprofit centers, and 25 percent in other nonprofit centers. Approximately three-quarters of for-profit chain centers experienced some turnover in teachers, while only about half of other types of centers experienced some turnover. The rates of teacher turnover in centers that have experienced some turnover range from 41 percent in religious-sponsored nonprofit centers to 64 percent in Head Start centers.

Head Start and public-school-based programs were less likely than other types of programs to experience teacher turnover during the year prior to the survey. Only one-fourth of public-school-based programs and one-third of Head Start programs experienced turnover, compared with over half of the other types of programs. However, among centers that experienced some turnover, average turnover rates were higher in Head Start and public-school-based programs than in other types of programs (64 and 60 percent, compared with 41 and 50 percent of religious-sponsored and other programs, respectively).

Average teacher turnover rates do not vary significantly according to program size. Small centers serving 30 or fewer children experienced an average teacher turnover rate of 24 percent compared with rates of 24 and 25 percent experienced by programs serving 31 to 60 and more than 60 children, respectively.

SPONSORSHIP

While centers provide caregivers with opportunities for collegial interaction and relief from their demanding interactions with children, providers in home-based settings work in a more isolated environment. Several studies have found that for family day care providers, supportive contacts from a network of family providers or the supervision of a sponsor may have a positive influence on caregiver-child interactions (Rosenthal, 1988; Divine-Hawkins, 1980).

Approximately one-quarter of regulated home-based providers are sponsored by an organization that coordinates family day care in their community. However, approximately half of the regulated home-based providers reported meeting regularly with other family day care providers.

Providers who are sponsored are much more likely than nonsponsored providers to meet regularly with other family day care providers (76 versus 41 percent). Providers in the Midwest are more likely than providers in other regions to meet with other providers (60 percent, compared with 42 percent in the West, 46 percent in the Northeast, and 49 percent in the South). Finally, larger regulated home-based providers are more likely than smaller providers to meet with other providers; 63 percent of providers who care for more than 6 children meet regularly with other providers, compared with 49 percent of providers who care for 4 to 6 children and 29 percent of providers who care for 3 or fewer children.

THE PROFILE OF QUALITY IN EARLY EDUCATION AND CARE SETTINGS

Although the various dimensions of quality have been examined separately, it is important to recognize that the overall quality of a setting is defined by the configuration of all these dimensions. The highest-quality settings are those that combine small group sizes, low child-staff ratios, well-qualified and stable caregivers, and program activities that allow for structured but child-initiated learning and do not include large amounts of unstructured free play time. Conversely, poor-quality settings are those in which large group sizes, high child-staff ratios, and untrained caregivers combine to form an environment that is not conducive to child development (Hayes et al., 1990). Little is known about the overall quality of care in settings where individual indicators of quality are inconsistent, such as in family day care settings in which the provider is poorly educated but the group size is small.

An examination of the correlations among the various quality indicators shows that, in general, quality along one dimension is not highly correlated with quality along another dimension (Appendix Table A.5). The highest correlations are those between average group sizes and average child-staff ratios. Average group sizes are moderately positively correlated with average child-staff ratios (correlation coefficients of .64 or less). By definition smaller groups tend to have smaller child-staff ratios. However, average child-staff ratios consistently increase as average group sizes increase beyond the smallest groups (Table IV.15).

TABLE IV.15

AVERAGE CHILD-STAFF RATIOS IN CENTER-BASED PROGRAMS BY GROUP SIZE

Average Group Size	Average Child/Staff Ratio	Sample Size
1 to 5 Children	3.2:1	160
6 to 10 Children	6.6:1	637
11 to 15 Children	8.8:1	883
16 to 20 Children	10.1:1	914
More Than 20 Children	12.5:1	608

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

The overall size of the center is positively associated with average group sizes and average child-staff ratios (Table IV.16). Programs that enroll 30 or fewer children maintain average group sizes of 13 children and ratios of 7.3 children per staff member, while centers that enroll more than 60 children maintain average group sizes of 18 children and ratios of 9.6 children per staff member.

SUMMARY

Based on group sizes and child-staff ratios measured in a telephone survey, it appears that on average the quality of care available in centers in the United States conforms with professional recommendations for preschool children but falls short of professional recommendations for infants and toddlers. While most programs reported meeting their state regulations for group size and child-staff ratios, only 56 to 84 percent of centers meet NAEYC accreditation criteria for preschool groups and 37 to 87 percent of center-based centers meet NAEYC accreditation criteria for infant and toddler groups.

From the perspective of teacher qualifications, the care available in centers is good. Teachers have completed a relatively high number of years of schooling, and virtually all teachers have had some specialized child-related training. However, average teacher wages are low ($7.49 per hour) given their education levels, and teacher turnover is high. Approximately half of all centers experienced some teacher turnover during the year prior to the survey, and in these centers, the turnover rate averaged 50 percent.

On average, the quality of care provided in regulated home-based settings also conforms with professional recommendations in most cases. Nearly three-quarters of regulated home-based settings meet state regulations, and slightly more than half of all regulated home-based settings meet HEWDCR requirements.

Regulated home-based providers have fewer years of schooling and less child-related training than teachers in center-based settings. However, many providers have the support of a sponsor or a group of family day care providers. Approximately half of regulated home-based providers reported that they meet regularly with other family day care providers, and one-quarter are sponsored by an

TABLE IV.16

AVERAGE GROUP SIZES AND CHILD-STAFF RATIOS IN CENTER-BASED PROGRAMS BY PROGRAM SIZE

Program Size	Average Group Size	Average Child-Staff Ratio
30 or Fewer Children	13	7.3:1
31 to 60 Children	16	8.6:1
More than 60 Children	18	9.6:1

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

agency that organizes family day care in their community.

V. FEES

The fee structure is a key aspect of early education and care programs. Fees play an important role in determining parents' selections of programs for their children. Fees also provide the major source of income for most programs, and thus determine the type of program that can be provided for children.

The following sections describe the measurement of fees in the PCS Study, the fees charged by center-based and regulated home-based programs at the beginning of 1990, the reported reasons for variations in fees charged, and the factors associated with differences in fees in center-based and regulated home-based settings.

MEASURING PROGRAM FEES

The PCS Study is the first national survey to obtain fees for early education and care directly from providers. In the past decade, information on fees has come primarily from two other sources: resource and referral agencies and child care users. Both of these sources have important limitations. Fee information from resource and referral agencies suggests higher prices than those that characterize the United States as a whole, reflecting the concentration of resource and referral agencies in large urban areas of the West and Northeast, where the cost of living is higher than the national average. In addition, the estimates of fees made by resource and referral agencies often do not take into account variations in hours of care and the ages of children in care. Fee information obtained from parents' reports of expenditures in such surveys as the Survey of Income and Program Participation (SIPP) (U.S. Bureau of the Census, 1990) and the National Longitudinal Survey of Youth (NLSY) (Hofferth, 1987) is also limited. The accuracy of parents' reports of expenditures is unknown, but parents are likely to underestimate fees if part of the fees are paid by a third party. In addition, the SIPP data include only employed parents and ask only about total expenditures on care, not expenditures for individual children or arrangements. Thus, that data set cannot be used to infer fees by type of care arrangement, except for families with one child and only one arrangement.

The PCS Study obtained information on fees directly from center-based and regulated home-based early education and care providers. Regulated family day care providers were asked detailed questions about the characteristics of each child in their care, including the child's age, sex, hours in care, length of time with the provider, and relationship to the provider. Included was a question that asked, "How much do you charge to care for (each child)?" If more than one child was included in one fee (for example, if the provider cared for more than one child from the same family), the total fee for those children was divided by the number of children included in that fee and the average fee was assigned to each child. Providers reported fees in a variety of units; all fees were converted into hourly units for this analysis, thus eliminating variation due to differences in hours in care.[1]

Fee structures in center-based early education and care programs are often complex, and constructing average fees for center-based care was not as straightforward. For programs with 10 or fewer different fees (the majority of programs), questions were asked about each fee, including the hours per day and days per week covered by the fee, the number of children for whom that fee was charged, and the minimum and maximum ages of the children for whom that fee was charged. Programs that had more than 10 different fees or a sliding fee scale were asked about their highest, lowest, and average fees.

Average fees for centers that charge 10 or fewer different fees were calculated by weighting each fee (including 0's) by the number of children for whom that fee was charged. Average fees by the age of the child were calculated on the basis of the age of the youngest child for whom that fee was charged. For programs that charge more than 10 fees or charge on a sliding scale, the average fee reported by the provider was used to represent the average fee charged by the program. It was not possible to calculate fees by the age of the child for these programs.

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[1] If more than 10 children were cared for in a family day care home (8 percent of homes), 10 children were selected at random for the hours and fee questions. In those cases, the average fee for the first 10 children represents the average fee for all children. Because age was known for all children in care, constructing average, minimum, and maximum fees by the age of the child in family day care was straightforward.

FEES CHARGED BY CENTER-BASED AND REGULATED HOME-BASED PROGRAMS

Almost all regulated family day care providers charge parents for care, while a substantial proportion of center-based programs do not charge parental fees. Fewer than one percent of regulated home-based programs do not charge parental fees. In contrast, 15 percent of centers, including subsidized programs such as Head Start and many public school programs, do not charge parents for care.

Excluding programs that do not charge fees, the average parental fees charged by center-based and regulated home-based programs are remarkably similar (Table V.1). Among programs that charge for care, regulated family day care providers charge an average of $1.64 per hour, and centers charge an average of $1.59 per hour. If programs that do not charge parental fees are included, regulated family day care fees average $1.61 per hour, while fees in centers average $1.36 per hour.

Average fees vary differently by age in regulated home-based and center-based programs. In regulated family day care homes, the highest hourly fees are charged for infants and toddlers and for school-age children, who are in care part-time (Table V.1). Preschool children are charged somewhat less per hour. Among centers that charge fees, average fees are lowest for groups in which the youngest child is an infant or toddler, somewhat higher for groups in which the youngest child is age 5 or older, and highest for groups in which the youngest child is 3 to 4 years of age. These differences in average fees by age probably reflect differences in the characteristics of programs that charge fees and differences in the hours that children of different ages are in care. The average fees for groups in which the youngest child is 3 or 4 years old exclude Head Start and public-school-based programs that do not charge fees. Moreover, more expensive part-time slots are more likely to be filled by 3- to 5-year-old preschool children than by infants and toddlers (Figure III.13). Differences in average hourly fees by age are explored further in the multivariate analyses presented below.

TABLE V.1

AVERAGE HOURLY FEES IN EARLY EDUCATION AND CARE PROGRAMS

	Regulated Home-Based Programs[a]		Center-Based Programs			
	Mean	Standard Error	All Programs		Programs Charging Fees	
			Mean	Standard Error	Mean	Standard Error
Age of Child[b]						
Under 12 months	$1.64	($0.06)	–	–	$1.32 [c]	($0.04)
12-23 months	$1.61	($0.05)	–	–	$1.48 [c]	($0.08)
24-35 months	$1.59	($0.04)	–	–	$1.62 [c]	($0.06)
36-47 months	$1.51	($0.04)	–	–	$1.86 [c]	($0.06)
48-59 months	$1.44	($0.05)	–	–	$1.90 [c]	($0.08)
60-71 months	$1.50	($0.05)	–	–	$1.65 [c]	($0.04)
72 months or more	$1.73	($0.06)	–	–	$1.70 [c]	($0.06)
All Ages:	$1.61	($0.04)	$1.36	($0.03)	$1.59	($0.03)
Average minimum	$1.30	($0.05)	$1.25	($0.04)	–	–
Average maximum	$1.99	($0.05)	$1.95	($0.20)	–	–
Sample Size	566		1,942		1,463	

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: This table excludes programs primarily for handicapped children.

[a] Includes programs that do not charge a fee.

[b] The age of the child for whom this fee is charged in family day care; the age of the youngest child for whom this fee is charged in center-based care.

[c] Could be calculated only for programs that charge 10 or fewer different fees (1,186 programs).

On average, the minimum fee charged by centers is $1.25 per hour, and the maximum fee charged is $1.95 per hour (Table V.1). Similarly, the average minimum and maximum fees charged by regulated home-based providers are $1.30 and $1.99 per hour, respectively. Fees charged by individual programs range from $0 to almost $12 per hour in centers and $0 to $5 per hour in regulated home-based programs.

FEE ADJUSTMENT POLICIES

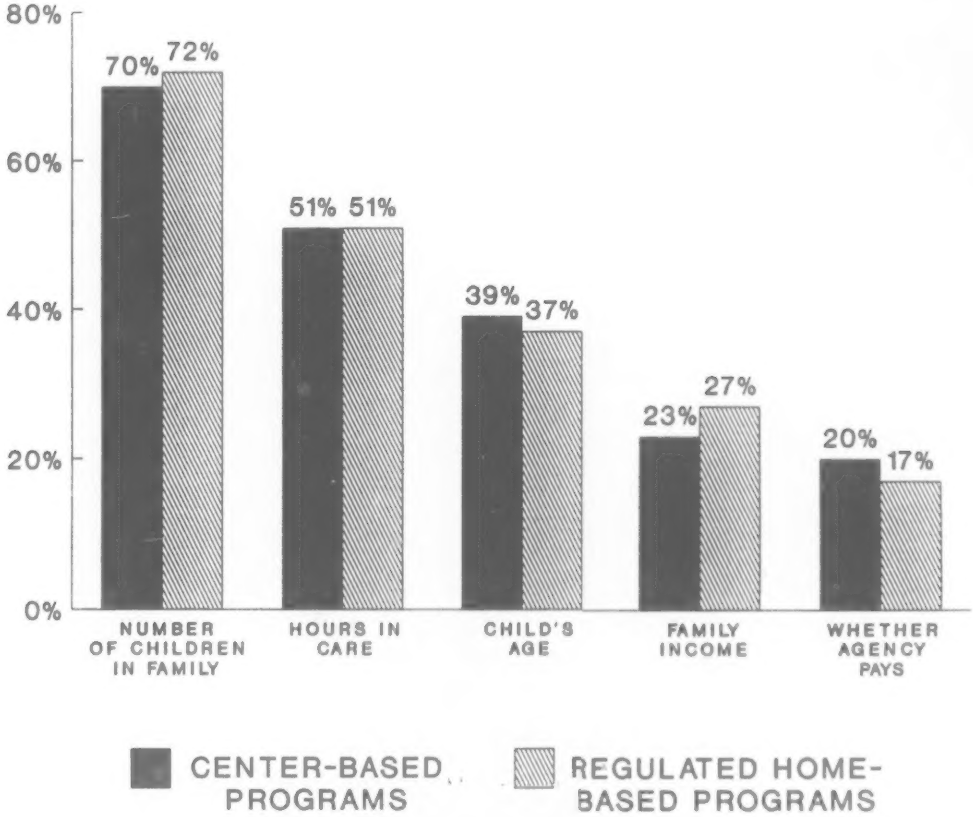
The reported fee adjustment policies of center-based and regulated home-based providers are very similar. The most commonly reported basis for charging a different fee is the number of children from the same family who are cared for by the provider (Figure V.1). Seventy percent of centers and 72 percent of regulated family day care providers reported adjusting their fees according to the number of children from one family. The number of hours in care is the second most commonly cited reason for adjusting fees, with half of the providers adjusting fees on the basis of hours. The child's age is the next most common basis for adjusting fees; 39 percent of centers and 37 percent of regulated family providers charge different fees based on the age of the child. Other factors on which programs base their fees include family income (25 percent), payments received from an outside agency (approximately 20 percent), and the provision of special services (approximately 17 percent). Some regulated family providers also consider their relationship with the family, and some centers consider whether the child is in care for extended hours. Regulated family providers are more likely than centers to adjust fees based on handicapping conditions.

VARIATIONS IN AVERAGE FEES CHARGED

Many factors, including those related to the costs of providing care, income from care, and local economic conditions, are likely to lead to variations in the level of fees charged by early education and care providers. Since time and resources are expensive, one would expect that the more services that are provided or the more intensive they are, the higher the fees that will be charged. For

FIGURE V.1

FEE ADJUSTMENT POLICIES OF EARLY EDUCATION AND CARE PROGRAMS



SOURCE: PROFILE OF CHILD CARE SETTINGS (MATHEMATICA POLICY RESEARCH, INC., 1990).

example, methods used to recruit children (such as being listed with a resource and referral agency) may contribute to higher fees if those methods cost the program money or require that the program comply with rules or regulations that it need not meet otherwise. In addition, providing greater convenience to parents (a greater number of hours open per day and per week, more weeks open per year, and a location close to public transportation) may prompt providers to charge more.

Factors that affect the quality of care provided are also likely to affect the fee charged for care. Because providing additional staff is expensive, lower child-staff ratios and smaller group sizes are likely to be linked to higher fees. Since the number of children who can legally be cared for by a given number of staff members is smaller at younger ages than at older ages, the ages of children in care are likely to be related to the fees charged for their care, with fees for younger children higher than those for older children. In addition, hiring more experienced, trained, or educated staff may require higher salaries and lead to higher fees. Programs that provide staff with paid time for planning daily activities may also spend more for staff and are likely to charge higher fees.

Factors that affect the provider's income from care and ability to cover costs may also be related to fees. If a part-time child would fill a full-time space, providers may be reluctant to take part-time children or may charge more per hour for them to compensate for the loss of hours (and income). In addition, programs that are more highly utilized are likely to be able to charge less per child than programs that are less utilized. Finally, the extent to which programs receive subsidies and funding from other sources will also influence the fees that they charge to parents.

The characteristics of the children and the neighborhood in which the program is located, including the incomes and welfare status of families in those neighborhoods, are also likely to influence the fees charged for care. Providers cannot remain in business by charging more than families can pay. Thus, local economic conditions are likely to affect the fees charged by providers.

Variations in Fees Charged by Centers

Among the factors associated with variations in the average hourly fees charged by center-based early education and care programs are those pertaining to the costs of providing care, income from care, and the ability of parents to pay.

Factors Associated with the Costs of Providing Care

Table V.2 presents differences in the extent to which programs charge parental fees and average hourly fees charged according to factors associated with differences in the costs of providing care.[2]

Child/Staff Ratios. As mentioned earlier, the child-staff ratio is one of the most important determinants of costs, as well as an indicator of quality. Centers with the highest child-staff ratios are the least likely to charge parental fees for care. However, among centers that charge fees, the relationship between average child-staff ratios and average hourly fees is not linear. Average hourly fees are relatively low among centers whose ratios are below 3:1 (a small number of programs)[3] and greater than 8:1 (a large number of programs), and relatively higher among centers whose average ratios are 3:1 to 7:1.

Age Distribution of Children. The age composition of children enrolled in care is clearly associated with whether or not a center charges for care. Centers that primarily serve children younger than age 3 or older than age 6 are more likely to charge fees than centers that primarily serve children ages 3 to 5. Only 72 percent of centers in which more than three-quarters of the children enrolled are age 3 to 5 charge fees, compared with 82 percent of centers enrolling primarily children under age 3 and 97 percent of centers enrolling mostly school-age children. However, among programs that charge fees, centers that primarily serve children ages 3 to 5 charge higher average hourly fees for care.

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[2] These differences do not take variations in other factors into account. Differences controlling for other factors are presented later in Chapter V.

[3] These are likely to be subsidized.

TABLE V.2

PERCENTAGE OF CENTERS THAT CHARGE A FEE AND AVERAGE HOURLY FEES, BY FACTORS PERTAINING TO PROGRAM COSTS

			Average Hourly Fee (non $0)		
	Percentage of Programs that Charge a Fee	Sample Size	Mean	Standard Error	Sample Size
Average Child-Staff Ratio					
1:1 or less	--a	3	--a		2
>1:1 to 2:1	--a	7	--a		6
>2:1 to 3:1	90 %	24	$1.35	($0.25)	19
>3:1 to 4:1	94	63	$1.85	($0.15)	53
>4:1 to 5:1	89	124	$1.67	($0.11)	100
>5:1 to 6:1	91	179	$1.71	($0.09)	151
>6:1 to 7:1	91	211	$1.70	($0.08)	175
>7:1 to 8:1	86	275	$1.69	($0.08)	209
>8:1	83	1,036	$1.50	($0.04)	727
Age Distribution					
Percentage of Children Under Age 3					
Under 25 percent	81	1,442	$1.66	($0.04)	894
25 to 49 percent	99	379	$1.43	($0.06)	356
50 to 74 percent	98	88	$1.35	($0.12)	76
75 to 100 percent	82	31	--a		21
Percentage of Children Ages 3-5					
Under 25 percent	92	87	$1.55	($0.13)	65
25 to 49 percent	99	431	$1.28	($0.06)	404
50 to 74 percent	99	405	$1.56	($0.06)	365
75 to 100 percent	72	1,017	$1.85	($0.05)	512
Percentage of Children Age 6+					
Under 25 percent	99	332	$1.53	($0.05)	313
25 to 49 percent	99	343	$1.33	($0.05)	316
50 to 74 percent	97	103	$1.36	($0.09)	92
75 to 100 percent	97	22	--a		17
Staff Education and Experience					
Percentage of Teachers with Less Than a High School Education					
Under 25 percent	85	1,778	$1.58	($0.03)	1,309
25 to 49 percent	100	9	--a		8
50 to 74 percent	--a	4	--a		4

TABLE V.2 (continued)

	Percentage of Programs that Charge a Fee	Sample Size	Average Hourly Fee (non $0)		
			Mean	Standard Error	Sample Size
Percentage of Teachers Whose Highest Level of Education is High School					
Under 25 percent	82 %	1,480	$1.69	($0.04)	1,026
25 to 49 percent	98	97	$1.40	($0.11)	93
50 to 74 percent	99	121	$1.22	($0.10)	116
75 to 100 percent	99	90	$1.04	($0.12)	83
Percentage of Teachers Whose Highest Level of Education is Some College					
Under 25 percent	80	791	$1.73	($0.05)	523
25 to 49 percent	96	253	$1.58	($0.07)	229
50 to 74 percent	92	351	$1.49	($0.06)	299
75 to 100 percent	80	398	$1.40	($0.07)	272
Percentage of Teachers with a College Degree					
Under 25 percent	85	852	$1.35	($0.05)	634
25 to 49 percent	91	266	$1.77	($0.07)	220
50 to 74 percent	86	276	$1.81	($0.08)	205
75 to 100 percent	79	398	$1.82	($0.07)	263
Percentage of Teachers with a Postgraduate Degree					
Under 25 percent	87	1,428	$1.51	($0.04)	1,095
25 to 49 percent	92	120	$1.78	($0.10)	103
50 to 74 percent	82	97	$2.23	($0.14)	60
75 to 100 percent	59	149	$1.92	($0.13)	66
Years in Operation					
Under 1 year	71	40	$1.51	($0.22)	23
1 to under 2 years	86	84	$1.48	($0.13)	65
2 to under 3 years	77	130	$1.57	($0.11)	86
3 to under 5 years	84	276	$1.43	($0.08)	197
5 to under 7 years	83	239	$1.55	($0.08)	166
7 to under 9 years	88	132	$1.64	($0.10)	105
9 to under 11 years	84	168	$1.57	($0.10)	122
11 to under 21 years	88	493	$1.54	($0.06)	374
21 to under 31 years	87	136	$1.78	($0.10)	107
31 or more years	98	67	$2.11	($0.14)	61

TABLE V.2 (continued)

	Percentage of Programs that Charge a Fee	Sample Size	Average Hourly Fee (non $0)		
			Mean	Standard Error	Sample Size
Listed With a Resource and Referral Agency					
Yes	84 %	1,161	$1.65	($0.04)	842
No	88	562	$1.44	($0.05)	445
Reported Accreditation by NAEYC					
Yes	72	364	$1.67	($0.07)	216
No	90	1,250	$1.54	($0.04)	1,010
Auspices					
For-Profit Programs					
Independent programs	99	458	$1.53	($0.05)	436
Chain programs	100	97	$1.47	($0.11)	91
Nonprofit Programs					
Independent programs	98	394	$1.73	($0.06)	372
Religious-sponsored programs	99	239	$1.65	($0.07)	225
Head Start programs	3	231	--[a]		7
Public school programs	61	255	$1.19	($0.11)	91
Other sponsored programs	91	131	$1.39	($0.10)	111
Offer Any Benefits to Staff					
Yes	84	1,709	$1.60	($0.04)	1,245
No	98	371	$1.56	($0.08)	218

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: This table excludes programs primarily for handicapped children.

[a] Small sample size.

Staff Education and Experience. Levels of staff education and experience are strongly associated with the average hourly fees charged. Centers with a high proportion of college-educated teachers, including Head Start and public-school-based programs, are least likely to charge parental fees. However, among fee-charging programs, the higher the proportion of teachers with at least a college degree, the higher the average hourly fee charged. Centers with a substantial proportion (50 percent or more) of teachers who have only a high school degree charge an average of $1.22 per hour, compared with $1.81 per hour charged by centers with the same proportion of teachers with a college degree.

Years in Operation. Centers that have been operating for a longer period of time are more likely than newer centers to charge parental fees, suggesting that centers relying on parental fees are more likely to remain operating for long periods of time. Among fee-charging programs, average hourly fees increase with the number of years that the center has been in operation. This finding suggests that centers charging higher fees are more successful in covering their costs and are able to stay in business longer. In addition, centers may market their experience to parents as evidence of the quality of their program, for which parents are willing to pay higher fees.

Resource and Referral/NAEYC Affiliation. Center-based programs that are listed with a resource and referral agency are no more likely to charge a fee than those that are not listed, but among those that charge for care, listed centers charge more than unlisted centers ($1.65 versus $1.44 per hour). Centers that reported being accredited by NAEYC are less likely to charge parental fees for care, but those that charge fees charge more for care than those who did not report accreditation. This probably reflects the fact that Head Start and public-school-sponsored programs, which do not charge fees, are more aware of NAEYC accreditation.

Legal Status and Auspices. One of the most important distinguishing characteristics of center-based programs is whether they are for-profit or nonprofit operations. Among all programs, for-profit centers are much less likely than nonprofit centers to provide care that is free to parents (less than

1 percent versus 23 percent). Considering only centers that charge parental fees for care, for-profit centers charge slightly less on average than nonprofit centers ($1.51 versus $1.63 per hour).

Average hourly fees differ substantially among the different types of for-profit centers. Independent for-profit centers charge an average of $1.53 per hour, compared with $1.39 per hour charged by centers that are part of national chains and $1.59 per hour charged by centers that are part of local chains. Among nonprofit centers, independent programs charge slightly more than sponsored programs.

Benefits. Centers that provide some fringe benefits to teachers are less likely to charge parental fees for care, but, among centers that charge fees, average hourly fees do not differ by whether any benefits are provided.

Factors Associated with Program Income

Table V.3 presents differences in the average hourly fees charged by center-based early education and care programs according to differences in factors associated with program income.[4]

Operating Schedule. Full-time programs are the most likely to charge a fee (94 percent), followed by programs that operate part-day (77 percent) and programs that operate part-week (52 percent). However, among programs that charge fees, both part-day and part-week programs charge more per hour than full-time programs ($2.08 and $1.68 per hour, respectively, compared with $1.46 per hour).

The more weeks per year that centers are open, the more likely they are to charge for care. However, among centers that charge parental fees, the more weeks that centers are open per year, the lower their average fees charged to parents. Centers that provide care for at least 48 weeks per year charge an average of $1.50 per hour, compared with $1.94 per hour charged by centers that

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[4] These differences do not take variations in other factors into account. Differences controlling for other factors are presented later in Chapter V.

TABLE V.3

PERCENTAGE OF CENTERS THAT CHARGE A FEE AND AVERAGE HOURLY FEES, BY FACTORS ASSOCIATED WITH PROGRAM INCOME AND CLIENT CHARACTERISTICS

	Percentage of Programs That Charge a Fee	Sample Size	Average Hourly Fee (Excluding $0 Fees) Mean	Standard Error	Sample Size
Operating Schedules					
Weekly Schedule					
Full-time	94 %	1,367	$1.46	($0.04)	1,114
Part-day	77	503	$2.08	($0.07)	278
Part-week	52	210	$1.68	($0.13)	71
Yearly Schedule					
Less than 24 weeks	--a	8	--a		1
24 to 35 weeks	63	127	$2.08	($0.15)	63
36 to 47 weeks	72	868	$1.94	($0.06)	448
48 to 52 weeks	97	394	$1.50	($0.07)	340
Program Size and Utilization					
Enrollment					
25 or less	79	464	$1.41	($0.07)	242
26 to 50	85	682	$1.61	($0.05)	476
51 to 75	92	381	$1.63	($0.06)	309
76 to 100	90	226	$1.59	($0.08)	175
More than 100	91	326	$1.70	($0.07)	261
Utilization Rate					
Under 25 percent	--a	4	--a		3
25 to 49 percent	97	38	$1.30	($0.18)	34
50 to 74 percent	95	253	$1.51	($0.07)	217
75 to 100 percent	84	1,642	$1.61	($0.04)	1,200
Sources of Income					
Percentage of Budget Met with Parental Fees					
Under 25 percent	28	510	$0.94	($0.11)	104
25 to 49 percent	100	52	$1.22	($0.15)	49
50 to 74 percent	100	97	$1.37	($0.11)	93
75 to 100 percent	99	1,061	$1.67	($0.04)	1,015

TABLE V.3 (continued)

	Percentage of Programs That Charge a Fee	Sample Size	Average Hourly Fee (Excluding $0 Fees)		
			Mean	Standard Error	Sample Size
Percentage of Budget Met with Government Funds					
Under 25 percent	99 %	1,153	$1.66	($0.04)	1,080
25 to 49 percent	99	55	$1.10	($0.15)	54
50 to 74 percent	95	55	$1.44	($0.16)	46
75 to 100 percent	28	459	$0.93	($0.11)	94
Ethnic Composition					
Percentage of Children Who Are White					
Under 25 percent	68	449	$1.14	($0.07)	229
25 to 49 percent	73	125	$1.26	($0.14)	62
50 to 74 percent	85	226	$1.59	($0.09)	142
75 to 100 percent	94	1,243	$1.70	($0.04)	1,010
Percentage of Children Who Are Black					
Under 25 percent	91	1,499	$1.69	($0.04)	1,148
25 to 49 percent	82	168	$1.27	($0.11)	98
50 to 74 percent	67	101	$1.25	($0.15)	51
75 to 100 percent	68	275	$1.11	($0.09)	146
Percentage of Children Who Are Hispanic					
Under 25 percent	89	1,831	$1.62	($0.03)	1,348
25 to 49 percent	78	91	$1.37	($0.15)	52
50 to 74 percent	66	51	$1.15	($0.25)	19
75 to 100 percent	53	70	$0.85	($0.22)	24
Cost-of-Living Indicators					
Urbanicity					
Urban	86	926	$1.78	($0.05)	633
Suburban	92	711	$1.55	($0.05)	549
Rural	82	443	$1.31	($0.07)	281
Region					
Northeast	85	366	$2.18	($0.07)	241
South	88	793	$1.29	($0.05)	586
Midwest	84	508	$1.63	($0.06)	339
West	89	378	$1.71	($0.07)	275

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Small sample size.

operate 36 to 47 weeks per year and $2.08 per hour charged by centers that provide care for less than 36 weeks per year.

Size of Program and Utilization. Program size is associated with whether a center-based program charges parental fees; smaller centers that serve 50 or fewer children are less likely than larger centers to charge parental fees, reflecting the fact that Head Start and public school programs are smaller, on average, than other programs. Among centers that charge, larger centers charge more per hour than smaller centers. Centers serving 25 or fewer children charge an average of $1.41 per hour, compared with an average of $1.70 per hour charged by centers serving more than 100 children. The higher average fees for larger centers imply rising average and marginal costs, which is characteristic of the short-run growth of a competitive firm in an industry with growing demand.

Center-based programs with relatively low utilization rates are more likely to charge parental fees than centers with higher utilization rates. However, among centers that charge, higher utilization rates are not associated with significantly higher or lower fees.

Sources of Income. Finally, another important factor associated with the average hourly fees that are charged is the program's funding sources. The higher the proportion of the program budget that is met with parental fees and the lower the proportion that is met with other sources of income, such as government subsidies, the higher the average hourly fee charged to parents. The average hourly fee charged by centers that receive most of their income from sources other than parental fees is $0.94 per hour, compared with $1.67 charged by centers that receive most of their income from parental fees.

Factors Associated with Parents' Ability To Pay

Ethnicity of Children. The ethnic composition of the children enrolled in centers is clearly associated with both the likelihood of charging parental fees and the levels of fees charged. The larger the proportion of children who are black or Hispanic, the less likely the center is to charge parental fees for care. Moreover, the higher the proportion of children who are black or Hispanic, the lower the average hourly fee charged. Fewer than three-quarters of centers in which the majority of children are nonwhite charge parental fees, and among those programs that charge fees, the average hourly fee is $1.14 to $1.26 per hour. In contrast, more than 85 percent of programs in which the majority of children are white charge parental fees, and those that charge fees charge an average of more than $1.60 per hour.

Cost-of-Living Indicators. The location of the center is strongly associated with the fees that it charges. Centers located in rural areas are the least likely to charge parents for care, while centers located in suburban areas are the most likely to charge parental fees. Among centers that charge, centers located in urban areas charge $1.78 per hour on average, compared with an average of $1.55 per hour in suburban areas and $1.31 per hour in rural areas.

Whether parental fees are charged does not differ by region. However, among centers that charge, average fees are highest in the Northeast ($2.18 per hour), somewhat lower in the West and Midwest ($1.71 and $1.63 per hour, respectively), and lowest in the South ($1.29 per hour).

Variations in Fees Charged by Regulated Home-Based Programs

The factors associated with variations in the average hourly fees charged by regulated home-based programs are similar to those associated with differences in the parental fees charged by centers. These factors include those associated with the cost of providing care, income from care, and parents' ability to pay for care.[5]

Factors Associated with the Cost of Providing Care

Table V.4 presents differences in the average hourly fees charged by regulated family day care providers according to differences in factors associated with the costs of providing care.

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[5] These differences do not take differences in other factors into account. Differences controlling for variations in other factors are examined later in Chapter V.

TABLE V.4

AVERAGE HOURLY FEES CHARGED BY REGULATED HOME-BASED PROGRAMS, BY FACTORS ASSOCIATED WITH PROGRAM COSTS

	Mean	Standard Error	Sample Size
Child-Staff Ratio[a]			
1:1 or less	--b		17
> 1:1 to 2:1	$1.58	($0.09)	55
> 2:1 to 3:1	$1.78	($0.07)	90
> 3:1 to 4:1	$1.62	($0.06)	140
>4:1 to 5:1	$1.69	($0.06)	139
> 5:1 to 6:1	$1.37	($0.09)	67
> 6:1 to 7:1	$1.32	($0.15)	23
> 7:1	--b		16
Enrollment			
1 to 3 children	$1.79	($0.07)	119
4 to 6 children	$1.56	($0.05)	272
7 or more children	$1.58	($0.06)	175
Provider Has Child-Related Training			
Yes	$1.69	($0.04)	355
No	$1.49	($0.05)	211
Educational Attainment of Provider			
Less than high school	$1.20	($0.08)	70
High school	$1.55	($0.05)	220
Some college	$1.65	($0.05)	212
College	$2.02	($0.09)	58
Graduate school	--b		6
Years Providing Care			
Less than 1 year	$1.87	($0.11)	38
1 to less than 2 years	$1.85	($0.09)	65
2 to less than 3 years	$1.60	($0.08)	75
3 to less than 5 years	$1.52	($0.07)	106
5 to less than 7 years	$1.69	($0.08)	73

TABLE V.4 (continued)

	Mean	Standard Error	Sample Size
7 to less than 9 years	$1.63	($0.10)	51
9 to less than 11 years	$1.51	($0.11)	44
11 to less than 21 years	$1.48	($0.08)	85
21 to less than 31 years	$1.41	($0.16)	20
31 or more years	--b		3
Age of Provider			
18 to 21 years	--b		2
22 to 29 years	$1.64	($0.07)	103
30 to 39 years	$1.71	($0.05)	223
40 to 49 years	$1.57	($0.07)	128
50 to 59 years	$1.62	($0.09)	68
60 or more years	$1.18	($0.11)	39
Number of Provider's Own Children in Care			
0	$1.49	($0.05)	269
1	$1.72	($0.07)	119
2	$1.75	($0.06)	122
3 or more	$1.65	($0.09)	56
Percentage of Children Under 3 Years Old			
0 to under 25 percent	$1.56	($0.06)	125
25 to under 50 percent	$1.53	($0.06)	161
50 to under 75 percent	$1.53	($0.06)	146
75 to 100 percent	$1.84	($0.06)	134
Percentage of Children 3 to 5 Years Old			
0 to under 25 percent	$1.78	($0.06)	173
25 to under 50 percent	$1.55	($0.06)	174
50 to under 75 percent	$1.51	($0.06)	168
75 to 100 percent	$1.54	($0.10)	51

TABLE V.4 (continued)

	Mean	Standard Error	Sample Size
Percentage of Children Over 5 Years Old			
0 to under 25 percent	$1.63	($0.04)	420
25 to under 50 percent	$1.52	($0.07)	91
50 to under 75 percent	$1.64	($0.12)	35
75 to 100 percent	$1.68	($0.16)	20
Age Distribution of Children in Care			
Only infants and toddlers	$1.91	($0.08)	83
Only school-age children	$1.67	($0.21)	13

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Child-staff ratio is the full-time equivalent ratio; see Chapter IV for a discussion of ratios.

[b] Small sample size.

Child-Staff Ratios. A clear relationship exists between child-staff ratios[6] and fees in regulated home-based settings. The fewer children cared for by one adult, the higher the average hourly fee charged for care. The average hourly fees charged by regulated home-based providers whose ratios are less than 3 children to 1 adult range from $1.58 to $1.78 per hour, while the average hourly fees charged by providers whose ratios are 5:1 and higher are less than $1.40 per hour.

Group Size. Maximum group size (total enrollment) is negatively associated with hourly fees. Regulated home-based providers who care for fewer than 4 children charge an average of $1.79 per hour, while providers who care for 4 or more children charge an average of about $1.56 per hour.

Education and Training of Provider. An important aspect of the quality of care that contributes to the cost of care provided is the caregiver's education and whether the caregiver has received special child care training. Average hourly fees are higher among providers who reported receiving special training ($1.69 per hour), compared with those who have not ($1.49 per hour). Average hourly fees are also higher among providers who have more years of schooling. Providers with fewer than 12 years of schooling charge an average of $1.20 per hour, compared with $1.55 per hour charged by those who have a high school degree, $1.65 per hour charged by those with 13 to 15 years of schooling, and $2.02 per hour charged by those with a college degree.

Experience. A negative relationship exists between average hourly fees and years of child care job experience. The longer the provider has been providing care, the lower the fee charged by that provider. For example, a provider who has been in business for less than 2 years charges $1.85 per hour on average, compared with $1.63 per hour charged by providers in business for 7 to 9 years and $1.41 per hour charged by providers who have been in business for 21 to 31 years. These results may reflect higher education levels among younger providers or more efficient caregiving by older providers. Older providers may also be less likely to raise their fees once they have established them, and thus, do not keep up with the market.

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[6] The child-staff ratio used in the analysis is the full-time-equivalent child-staff ratio, defined as the hours that children (including the provider's children) are in care divided by the number of hours that the provider and any helpers age 13 or older care for children.

The Age of the Provider. Older providers (60 years old and above) charge lower average hourly fees than younger providers ($1.18 per hour versus more than $1.55 per hour).

Relationship to Children. One important factor that distinguishes different types of providers is whether or not the provider cares for her own children at the same time that she cares for other children. Providers who care for their own children may view caregiving as a temporary occupation while their children are young and may be less dependent on child care income. However, the data suggest that providers caring for their own children are not less market oriented. Providers who do not care for any of their own children charge less per child on average than providers who care for their own children, suggesting that providers not caring for their own children may spread the costs of providing care over more paying children.

The Age Distribution of Children. The factor that is likely to have the strongest relationship to average hourly fees is the age composition of the children served, because the maximum group size permitted by most state laws is smaller when younger children are enrolled. Overall, average hourly fees decline gradually as children become older; however, at age 6, the average hourly fee once again rises, perhaps because care for school-age children is part-time. As shown in Table V.1, the average fee for children younger than age 1 is $1.64 per hour. The average fee drops to $1.44 per hour for 4-year-olds and rises to $1.73 for 6-year-olds.

Fees clearly increase as the percentage of children younger than age 3 increases and decline as the percentage of children age 3 to 5 years increases. Fees increase as the percentage of children 6 years of age and older increases. Programs exclusively for infants or toddlers (a maximum age of 2 years or less) charge more than other programs ($1.91 versus $1.59 per hour). Programs that serve exclusively school-age children (a minimum age of 6 years) charge an average of $1.67 per hour.

Factors Associated with Income From Child Care

Table V.5 presents differences in the average hourly fee charged by regulated home-based providers according to differences in factors associated with income from child care.[7]

Schedule. Most regulated home-based providers provide full-week, full-day care. However, providers who provide part-time care charge more than providers of full-time care. The most expensive care is part-week care, at an average of $1.93 per hour, followed by full-time care at $1.59 per hour, and then by the infrequently found part-day care at $1.20 per hour. Providers who are available all year also charge less per hour ($1.61 per hour) than do providers available 9 to 11 months per year ($1.79 per hour).

Capacity. The lowest average hourly fees are charged by providers whose enrollments are close to their licensed capacity, which suggests that providers can fill their programs by keeping their fees lower. Providers with enrollments greater than their licensed capacity charge higher average hourly fees, probably because children are in care only part-time.

Facilities and Convenience. Fees vary by distance to public transportation; the highest fees are charged by providers located closest to public transportation. Providers within a mile of public transportation charge $1.71 per hour, those within 1 to 5 miles charge $1.65 per hour, and those located further than 5 miles from public transportation, including providers in rural areas with no public transportation, charge an average of $1.37 per hour for care.

Factors Associated with Parents' Ability to Pay

Table V.6 presents differences in average hourly fees according to factors associated with parents' ability to pay for care.[8]

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[7] These differences do not take differences in other factors into account. Differences controlling for other factors are examined later in Chapter V.

[8] These differences do not take variations in other factors into account. Differences controlling for other factors are examined later in Chapter V.

TABLE V.5

AVERAGE HOURLY FEES IN REGULATED HOME-BASED PROGRAMS, BY FACTORS ASSOCIATED WITH PROGRAM INCOME

	Mean	Standard Error	Sample Size
Weekly Operating Schedule			
Full-time[a]	$1.59	($0.04)	485
Part-day[a]	$1.20	($0.16)	20
Part-week[a]	$1.93	($0.09)	61
Number of Weeks Open			
0 to 24 weeks	$1.15	($0.29)	6
24 to under 36 weeks	--b		1
36 to under 48 weeks	$1.79	($0.13)	33
48 to 52 weeks	$1.61	($0.04)	538
Enrollment Exceeds Capacity	$1.72	($0.08)	80
Enrollment Equals Capacity	$1.51	($0.06)	150
Enrollment Less Than Capacity by:			
1 to 2 children	$1.63	($0.06)	168
3 to 4 children	$1.59	($0.07)	112
5 or more children	$1.74	($0.10)	54

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Full-time care is care provided 5 days per week for at least 7 hours per day. Part-day care is care provided 5 days per week for less than 7 hours per day. Part-week care is care provided less than 5 days per week.

[b] Small sample size.

TABLE V.6

AVERAGE HOURLY FEES IN REGULATED HOME-BASED PROGRAMS BY FACTORS INDICATING PARENTS' ABILITY TO PAY

Provider Characteristics	Mean	Standard Error	Sample Size
Race/Ethnicity			
White non-Hispanic	$1.66	($0.04)	460
Black non-Hispanic	$1.23	($0.09)	57
Hispanic	$1.65	($0.12)	37
Other	--[a]		4
Marital Status			
Married	$1.66	($0.04)	471
Divorced	$1.39	($0.10)	50
Separated	--[a]		8
Widowed	$1.14	($0.16)	20
Never married	--[a]		17
Annual Household Income Excluding Income from Child Care			
Under $10,000	$1.44	($0.07)	94
$10,000 to $19,999	$1.43	($0.07)	104
$20,000 to $29,999	$1.53	($0.06)	117
$30,000 to $49,999	$1.94	($0.06)	134
$50,000 or more	$1.94	($0.14)	25
Distance to Public Transportation			
Under 1 mile	$1.71	($0.05)	326
1 to 5 miles	$1.65	($0.08)	77
Over 5 miles	$1.37	($0.06)	152
Urbanicity			
Urban	$1.71	($0.05)	246
Suburban	$1.65	($0.06)	170
Rural	$1.37	($0.06)	150
Region			
Northeast	$1.96	($0.08)	84
South	$1.29	($0.06)	132
Midwest	$1.42	($0.06)	181
West	$1.83	($0.06)	158

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Small sample size.

Ethnicity, Socioeconomic Status, and Marital Status of Provider. The best available indicators of the socioeconomic status of the families served by regulated home-based providers are the provider's ethnicity, marital status, and family income. Family day care providers live in the same neighborhoods as the families they serve and are, therefore, of a similar socioeconomic level. Providers with lower socioeconomic status charge lower average hourly fees. The average hourly fees charged by black providers are lower than those charged by providers who are white, Hispanic, or members of other ethnic groups ($1.23 versus $1.65 per hour). Fees also vary according to the marital status of the provider; married providers charge the most ($1.66 per hour), and divorced and widowed providers charge the least ($1.39 and $1.14 per hour, respectively). Race and marital status may simply serve as proxies for other income. Regulated home-based providers who have higher family income from sources other than child care charge higher average hourly fees.

Income of Children's Families. The most direct measure of parents' ability to pay for care is their family income. Although information on the average income level of parents is not available from the PCS survey, two indicators of parents' income are available: whether any parents are on Aid to Families with Dependent Children (AFDC) and whether any children are subsidized by a public agency. The average hourly fee charged by regulated home-based providers does not differ according to whether any children are subsidized or whether their parents receive public assistance.

Cost-of-Living Indicators. Finally, the characteristics of the area that providers serve are strongly associated with hourly fees. Fees charged by regulated home-based providers are much higher in urban and suburban areas than in rural areas. Fees average $1.71 per hour in urban areas, $1.65 per hour in suburban areas, and $1.37 per hour in other nonmetropolitan areas. Regional differences are also large. Average hourly fees are highest in the Northeast ($1.96 per hour) and in the West ($1.83 per hour) and lowest in the South ($1.29) and Midwest ($1.42 per hour).

MULTIVARIATE ANALYSIS OF FACTORS ASSOCIATED WITH FEES

Because a large number of factors appear to be associated with fees, we conducted multivariate analyses to determine both the magnitude and relative importance of the relationships between various factors and the level of parental fees charged. Not all of the variables discussed in the previous section are likely to be associated with fees when other variables are taken into account. Thus, we tested the significance of the association between each of the variables and average hourly fees in multiple regression models in which all of the above variables were included. Many of the variables were not statistically significant and were dropped from the regressions. However, the most important policy variables that were not significant were retained to show that they were not associated with fees when other factors were controlled.[9]

In each analysis, two separate models were estimated, one including only data collected in the PCS Study and the second including the characteristics of the counties in which the providers reside (that is, contextual variables). These contextual variables were collected from a variety of public sources and merged with the data file of individual programs according to the county in which they are located. The two models are presented so that the impact of adding these variables on the variables in the model can be established. A description of each of these variables and the methodology used to create them is included in Volume II.

Factors Associated with Whether Centers Charge Parental Fees

Table V.7 presents the results of logistic regression analyses of whether center-based early education and care programs charge parental fees. The factors affecting whether or not a center charges for care appear to be primarily those that are linked to the availability of subsidies.

Factors That Affect the Cost of Providing Care. Among the cost-related factors that significantly influence whether or not centers charge parental fees are the center's legal status and sponsorship,

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[9] State regulations were assumed to be associated with fees only through their association with the quality of care provided, and are excluded from the factors in the models.

TABLE V.7

LOGISTIC REGRESSION ANALYSIS OF FACTORS ASSOCIATED WITH WHETHER CENTERS CHARGE FOR CARE

Variable	Without Contextual Variables	With Contextual Variables
Intercept	4.160	0.165
	(3.051)	(5.031)
Auspices[a]		
Independent for-profit program	1.897	2.351 *
	(1.002)	(1.091)
For-profit chain program	-0.274	0.006
	(1.890)	(2.191)
Nonprofit Head Start program	-5.795 **	-6.337 **
	(1.101)	(1.181)
Nonprofit religious-sponsored program	1.846 *	1.980 *
	(0.855)	(0.870)
Nonprofit agency-sponsored program	-1.328	-1.472
	(1.104)	(1.105)
Nonprofit employer-sponsored program	-2.788 *	-3.677 *
	(1.269)	(1.524)
Nonprofit nonreligious school-based program	-3.185 **	-3.365 **
	(0.504)	(0.532)
Nonprofit government-sponsored program	-0.999	-1.125
	(0.659)	(0.712)
Nonprofit community-sponsored program	-2.014 **	-2.198 **
	(0.653)	(0.700)
Primary Goal[b]		
To provide a warm environment	-3.850 *	-4.103 *
	(1.792)	(2.066)
School preparation	-3.967 *	-4.157 *
	(1.803)	(2.071)
Compensatory education	-5.117 **	-5.945 **
	(1.904)	(2.216)
Child development	-3.272	-3.602
	(1.770)	(2.043)
To teach appreciation of culture	-4.016	-4.677 *
	(2.136)	(2.420)

TABLE V.7 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Age Distribution		
Percentage of children younger than age 3	0.019 (0.015)	0.013 (0.015)
Percentage of children age 6 or older	0.039 ** (0.014)	0.038 ** (0.015)
Average Child-Staff Ratio	-0.028 (0.056)	-0.068 (0.062)
Average Group Size	0.004 (0.027)	0.016 (0.028)
Program Reported it is Accredited by NAEYC[c]	-0.519 (0.398)	-0.573 (0.419)
Educational Levels of Teachers		
Percentage of teachers with some college	-0.007 (0.014)	-0.008 (0.014)
Percentage of teachers with a college degree	-0.002 (0.014)	-0.006 (0.014)
Percentage of teachers with a graduate degree	-0.005 (0.015)	-0.008 (0.015)
Program Enrollment	-0.015 (0.287)	0.003 (0.297)
Operating Schedules		
Number of weeks open per year	0.162 ** (0.036)	0.165 ** (0.039)
Number of years in operation	0.067 ** (0.020)	0.066 ** (0.021)
Full-Day Program[d]	1.856 ** (0.505)	2.216 ** (0.549)
Part-Week Program[d]	-0.557 (0.524)	-0.577 (0.553)
Number of Paid Staff	-0.051 * (0.027)	-0.045 (0.029)
Utilization Rate	-0.037 ** (0.015)	-0.043 ** (0.015)
Ethnicity of Children Enrolled		
Percentage of children who are black, non-Hispanic	-0.045 ** (0.008)	-0.049 ** (0.009)

TABLE V.7 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Percentage of children who are Hispanic	-0.050 ** (0.010)	-0.061 ** (0.011)
Percentage of children who are Asian	-0.001 (0.022)	-0.017 (0.024)
Percentage of children who are American Indian	-0.016 (0.042)	-0.025 (0.054)
Percentage of children who are of other ethnic groups	-0.022 (0.049)	-0.027 (0.054)
Program Offers Fringe Benefits[c]	0.336 (0.893)	0.079 (0.913)
Listed with Resource and Referral Agency[c]	0.055 (0.413)	-0.116 (0.443)
Teachers Follow Written Curriculum[c]	0.740 (0.510)	0.789 (0.543)
Teachers Meet Regularly with Parents[c]	-1.295 * (0.633)	-1.231 (0.667)
Region[f]		
West	-0.071 (0.689)	0.394 (0.908)
Midwest	-0.041 (0.196)	0.142 (0.256)
Northeast	-0.123 (0.146)	-0.148 (0.218)
Urbanicity[g]		
Urban	0.446 (0.503)	-0.180 (0.881)
Suburban	0.366 (0.511)	-0.268 (0.744)
Contextual Factors[h]		
Economic vitality		1.194 * (0.511)
Minority concentration		-0.306 (0.522)
Social disorganization		-0.351 (0.353)
Population age structure		-0.536 (0.294)

TABLE V.7 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Percentage of families below poverty, 1979		0.216 (0.116)
Population per square mile, 1986 (in 000)		-0.000 (.000)
Percent of females in county labor force, 1980		0.071 (.056)
-2 x Log-Likelihood	263.11	241.34
Sample Size	1,473	1,473

SOURCE: Profile of Child Care settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: Numbers in parentheses are standard errors.

[a] Dichotomous variables describing auspices. The omitted category is independent nonprofit programs.

[b] Dichotomous variables describing program goals. The omitted category is providing child care so parents can work.

[c] Dichotomous variable equal to 1 if program reported that it is accredited.

[d] Dichotomous variables describing the program's schedule. The omitted category is part-day.

[e] Dichotomous variables equal to 1 if the program has the given characteristic.

[f] Dichotomous variables describing the region in which the program is located. The omitted category is the South.

[g] Dichotomous variables describing the urbanicity of the program's location. The omitted category is rural.

[h] See Appendix B for further discussion of the contextual factors.

*Coefficient is statistically significant at the 95 percent confidence level.
**Coefficient is statistically significant at the 99 percent confidence level.

the age composition of children enrolled, and program goals. Compared with independent nonprofit centers (the omitted category), sponsored nonprofit centers (except those sponsored by religious organizations) are less likely to charge parental fees. Nonprofit religious-sponsored centers are more likely to charge a fee than are independent nonprofit centers. Independent for-profit centers are more likely than independent nonprofit centers to charge a fee to parents.

In addition to legal status and sponsorship, the primary goal of the program is significantly associated with the probability that the center charges parental fees. Centers whose primary goal is to promote child development, prepare children for school, provide compensatory education, or teach an appreciation of culture are less likely to charge parental fees than are those whose main goal is to provide care for the children of working parents. This finding is consistent with the fact that the federal programs that support centers directly are designed primarily to promote child development or provide compensatory education rather than to provide child care for employed mothers.

Centers serving higher proportions of children who are school-age are significantly more likely to charge parental fees for care. Because subsidized programs are more widely available for the 3- to 5-year-old age group than for older children, these findings again suggest that the availability of subsidies strongly determines whether a fee is charged.

Higher-quality programs do not appear to be significantly more or less likely to charge fees than lower-quality programs, when other factors are controlled. Neither the average child-staff ratio nor average group size is associated with whether a center charges fees, net of other factors. The educational attainment of the teachers employed by the center is not associated with whether a center charges a fee, nor is reported accreditation by the National Association for the Education of Young Children.

Centers that report having regular meetings with parents are less likely to charge a fee than those that do not report having regular meetings. This association is probably due to the overrepresentation of Head Start programs (which mandate parental involvement) among the non-fee-charging programs.

Finally, the longer the center has been in operation, the more likely it is to charge parental fees.

Factors That Affect Income from Care. Among the income-related factors that are significantly associated with the probability that a center charges parental fees are program utilization and operating schedules. Centers with higher utilization rates are less likely than centers with lower utilization rates to charge parental fees, suggesting that centers that do not charge parental fees are likely to be oversubscribed. In addition, centers that provide fewer hours of care are less likely to charge parental fees than centers that provide more hours of care. The more weeks a center is open during the year, the more likely it is to charge fees. Moreover, full-time centers are more likely than part-day centers to charge fees. Part-week centers are as likely as part-day centers to charge fees.

Factors Associated with Parents' Ability to Pay. Among the indicators of parents' ability to pay for care, the ethnic composition of the children enrolled is significantly associated with whether a center charges fees, but center location is not significantly associated when other factors are controlled. The higher the proportion of black and Hispanic children served by a center, the lower the probability that the center charges a fee. The likelihood of charging parental fees does not differ by regional or metropolitan status, implying that no-fee and fee programs are equally available in all regions and in rural and urban areas.

The economic vitality of the county in which the center is located and the percentage of families below the poverty level are strongly associated with whether a center charges for care, net of other factors. Centers located in more prosperous counties and in counties with large concentrations of poor families are more likely to charge for care. Centers located in areas with a younger age structure are less likely to charge a fee.

Factors Associated with Parental Fees

Table V.8 presents an ordinary least squares regression analysis of factors associated with the average hourly fees charged by centers that charge parental fees. A relatively high proportion of the variance in fees among centers charging for care (45 percent) is accounted for by the factors included in the regression without any contextual variables. Thus, contextual factors, which increase the variance explained by only 2 percentage points, are not important determinants of the level of fees charged after other factors are controlled.

Factors Associated with the Costs of Providing Care. Higher quality, as indicated by the average child-staff ratios maintained by the program and the formal educational levels of teachers, is associated with higher fees among centers that charge fees, all other things equal. The greater the number of children per staff member, the lower the fees charged by centers. For each additional child per staff member, the average hourly fee declines by approximately $0.04 per hour, which is equivalent to $1.60 per 40-hour week. In addition, the higher the proportion of teachers with some college education, a college degree, or some graduate education, the higher the fees that are charged.

Programs whose main goal is to prepare children for school or to enhance their development charge more per hour than do programs whose primary goal is to care for the children of employed mothers, all else equal. Two other factors that affect the cost of care are significantly associated with fees, even after other factors are controlled. Centers listed with a resource and referral agency charge higher average hourly fees than do unlisted centers (15 cents more per hour, or $6.00 per 40-hour week), and centers that offer at least one fringe benefit to staff charge more for care than do centers that do not provide fringe benefits to staff (19 cents more per hour, or $7.60 per 40-hour week).

Factors Associated with Income from Care. Among the factors related to income from care that are significantly associated with average hourly fees when other factors are controlled are program size and operating schedule. Large centers charge more than small ones, even after other factors are

TABLE V.8

REGRESSION ANALYSIS OF FACTORS ASSOCIATED WITH THE AVERAGE HOURLY FEES CHARGED BY CENTERS THAT CHARGE FEES

Variable	Without Contextual Variables	With Contextual Variables
Intercept	1.633** (.312)	1.128* (.493)
Auspices[a]		
Independent for-profit program	0.000 (.055)	0.002 (.054)
For-profit chain program	-0.133 (.100)	-0.137 (0.098)
Nonprofit religious-sponsored program	-0.079 (.065)	-0.095 (.064)
Nonprofit agency-sponsored program	-0.554* (.250)	-0.514* (.248)
Nonprofit employer-sponsored program	2.640** (.345)	2.428** (.340)
Nonprofit nonreligious school-based program	-0.309** (.110)	-0.309** (.108)
Nonprofit government-sponsored program	-0.067 (.154)	-0.140 (.152)
Nonprofit community-sponsored program	-0.290* (.131)	-0.287* (.129)
Indicators of Quality		
Average child-staff ratio	-0.035** (.008)	-0.030** (.008)
Average group size	-0.000 (.003)	-0.000 (.003)
Educational Levels of Teachers		
Percentage of teachers with less than a high school diploma	0.000 (.005)	0.001 (.005)
Percentage of teachers with some college	0.002* (.001)	0.001 (.001)
Percentage of teachers with a college degree	0.003** (0.001)	0.002 (.001)

TABLE V.8 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Percentage of teachers with a graduate degree	0.005** (.001)	0.004** (.001)
Number of Paid Staff	-0.003 (.004)	-0.002 (.004)
Primary Goal[b]		
To provide a warm environment	0.116 (0.097)	0.133 (.095)
School preparation	0.250* (.113)	0.255* (.111)
Compensatory education	-0.360 (.277)	-0.408 (.273)
Child development	0.293** (.106)	0.289** (.104)
To teach appreciation of culture	0.053 (.238)	-0.013 (.234)
Religious instruction	-0.064 (.147)	-0.020 (.144)
Program Reported Accreditation by NAEYC[c]	0.096 (.057)	0.096 (.056)
Teachers Follow Written Curriculum[c]	-0.026 (.058)	-0.000 (.057)
Teachers Meet Regularly with Parents[c]	0.013 (.051)	0.001 (.050)
Age Distribution		
Percentage of children younger than age 3	-0.002 (.001)	-0.001 (.001)
Percentage of children age 6 or older	-0.001 (.001)	0.000 (.001)
Listed with Resource and Referral Agency[c]	0.145** (.047)	0.096* (.047)
Program Offers Fringe Benefits[c]	0.192* (.087)	0.177* (.086)
Program Enrollment	0.128** (.037)	0.122** (.036)
Number of Years in Operation	0.004* (.002)	0.004* (.002)

TABLE V.8 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Utilization Rate	-0.002	-0.003
	(.002)	(.002)
Operating Schedule		
Full-time[d]	0.040	0.025
	(.079)	(.077)
Part-week[d]	-0.185	-0.197
	(.106)	(.104)
Number of weeks open per year	-0.026**	-0.028**
	(.005)	(.005)
Ethnicity of Children Enrolled		
Percentage of children who are black	-0.004**	-0.005**
	(0.001)	(.001)
Percentage of children who are Hispanic	-0.009**	-0.010**
	(.002)	(.002)
Percentage of children who are Asian	-0.004	-0.006**
	(.002)	(.002)
Percentage of children who are American Indian	0.007	0.006
	(.005)	(.005)
Percentage of children who are of other races	-0.008	-0.009
	(.005)	(.005)
Percent of Budget Met with Parent Fees	0.006**	0.006**
	(.001)	(.001)
Urbanicity[e]		
Urban	0.362**	0.241**
	(.062)	(.091)
Suburban	0.116*	0.023
	(0.059)	(.077)
Region[f]		
West	0.308**	0.232**
	(.073)	(.089)
Midwest	0.039	0.067*
	(.021)	(.027)
Northeast	0.153**	0.163**
	(.017)	(.023)

TABLE V.8 (cont.)

Variable	Without Contextual Variables	With Contextual Variables
Contextual Factors[g]		
Economic vitality		0.199** (.048)
Minority concentration		-0.062 (.053)
Social disorganization		0.045 (.038)
Population age structure		-0.091** (.028)
Percentage of families below poverty, 1979		0.030* (.012)
Population per square mile, 1986 (in 000)		0.003 (.006)
Percent of females in county labor force, 1980		0.009 (.006)
R^2	.447	.474
Sample Size	1,083	1,083

SOURCE: Profile of Child Care settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: Numbers in parentheses are standard errors.

[a] Dichotomous variables describing auspices. The omitted category is independent nonprofit programs.

[b] Dichotomous variables describing program goals. The omitted category is providing child care so parents can work.

[c] Dichotomous variable equal to 1 if program reported that it is accredited.

[d] Dichotomous variables describing the program's schedule. The omitted category is part-day.

[e] Dichotomous variables equal to 1 if the program has the given characteristic.

[f] Dichotomous variables describing the region in which the program is located. The omitted category is the South.

[g] Dichotomous variables describing the urbanicity of the program's location. The omitted category is rural.

[h] See Appendix B for further discussion of the contextual factors.

*Coefficient is statistically significant at the 95 percent confidence level.
**Coefficient is statistically significant at the 99 percent confidence level.

controlled. This result suggests that larger programs may be in greater demand by parents, or perhaps diseconomies of scale are at work in early education and care.

In general, the more hours a center operates, the lower are its average hourly fees. The more weeks a center is open per year, the less it charges. For each additional week the center operates, the average hourly fee is 3 cents lower. In addition, the more years the center has been in operation, the more it charges.

Factors Associated with Parents' Ability to Pay. When other factors are controlled, average hourly fees remain strongly associated with the ethnic composition of the children enrolled. Centers that enroll a large proportion of black or Hispanic children charge lower average hourly fees than do centers that serve a large proportion of white children. For each additional 10 percent of children who are black, the average hourly fee is 4 cents lower. Similarly, for each additional 10 percent of children who are Hispanic, the average hourly fee is 9 cents lower.

Urban-rural and regional differences are very strongly associated with average hourly fees charged, even after other factors are controlled. Centers in urban areas charge 36 cents per hour more than centers in rural areas. Centers in the suburbs charge more than rural centers (12 cents more per hour). Compared with centers in the South, centers in the West charge 31 cents more per hour, centers in the Northeast charge 15 cents more per hour, and centers in the Midwest charge 4 cents more per hour.

Economic vitality, the age structure of the population in the county, and the percentage of families below poverty are significantly associated with average hourly fees in centers. After controlling for other factors, centers located in economically more prosperous counties and in counties with larger concentrations of poor families charge higher average hourly fees, and centers in areas with younger age structures charge lower fees for care than do centers in other counties. Including county characteristics reduces the effect of urban residence, although it does not eliminate it entirely, and reduces the effect of location in a suburb relative to location in a rural area. It reduces the impact of operating in the West, but not the effect of operating in the Midwest, nor does it reduce the impact of operating in the Northeast relative to operating in the South.

Organizational Characteristics. The legal status of the program and the sponsorship of nonprofit programs are strongly associated with average hourly fees, even after other factors are controlled. Compared with independent nonprofit centers (the omitted category), nonprofit centers sponsored by an agency, by a nonreligious school, or by a community group charge significantly less for care. The differentials in fees range from 55 cents per hour ($22 per week) less for agency-sponsored centers to 29 cents per hour ($11.60 per week) less for community-sponsored centers. Nonprofit centers sponsored by an employer charge considerably more than other types of centers ($2.64 per hour on average). This implies a weekly difference of $106 per week.

At a given level of quality (according to child-staff ratios and group sizes), centers that receive a larger percentage of their budget from parental fees charge more. For each additional 10 percent of the budget that is met with parent fees, the average hourly fee is 6 cents higher ($2.40 per week). Such centers do not have as large a reservoir of other funds to supplement parental fees.

Multivariate Analyses of Fees Charged by Regulated Home-Based Programs

Table V.9 presents the results of the regression analysis of factors associated with the average hourly fees charged by regulated home-based providers. Many of the same variables that were associated with the average hourly fees charged by centers (including indicators of quality and the characteristics of the area) also affect the average hourly fees charged by regulated home-based providers.

Factors That Affect the Cost of Providing Care. Perhaps the most important finding of the multivariate fee analysis is the strong association between indicators of quality and fees, after other factors are controlled. Regulated home-based programs charge approximately 9 cents per hour less for each additional child per adult. This amounts to a fee reduction of $3.60 per week for each additional full-time child per adult.

TABLE V.9

REGRESSION ANALYSIS OF FACTORS ASSOCIATED WITH THE AVERAGE HOURLY FEES CHARGED BY REGULATED HOME-BASED PROVIDERS

Variable	Without Contextual Variables	With Contextual Variables
Intercept	1.220**	0.097
	(.456)	(.653)
Quality Indicators		
Child-staff ratio	-0.094**	-0.116**
	(.026)	(.023)
Provider has had child-related training[a]	0.165**	0.137*
	(.060)	(.054)
Provider plans children's activities[a]	-0.060	-0.035
	(.062)	(.055)
Provider Education[b]		
Less than a high school diploma	-0.077	-0.027
	(.108)	(.097)
Some college	0.080	0.077
	(.062)	(.056)
College degree	0.282**	0.188*
	(.093)	(.083)
Graduate school	0.674**	0.559**
	(.229)	(.204)
Age Distribution		
Percentage of children younger than age 3	0.305**	0.209*
	(.110)	(.099)
Percentage of children age 6 or older	0.203	0.062
	(.159)	(.142)
Number of Helpers	-0.143**	-0.145**
	(.049)	(.043)
Age[c]		
Age 30-39	0.139	0.111
	(.076)	(.068)
Age 40-49	0.151	0.152
	(.093)	(.084)
Age 50-59	0.342**	0.245*
	(.119)	(.107)
Age 60+	0.066	-0.003
	(.186)	(.168)

TABLE V.9 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Experience in Child Care[d]		
2-4 years experience	-0.150	-0.128
	(.079)	(.072)
5-9 years experience	-0.192*	-0.178*
	(.085)	(.077)
10-19 years experience	-0.257**	-0.210*
	(.096)	(.086)
20+ years experience	-0.186	-0.218
	(.144)	(.131)
Participate in the Child and Adult Care Food Program[a]	-0.074	-0.059
	(.067)	(.060)
Program Enrollment	0.035*	0.040**
	(.014)	(.012)
Child Turnover Rate	-0.005	-0.515
	(1.00)	(1.16)
Number of Providers' Own Children in Care	0.062	0.068*
	(.034)	(.030)
Cares for Related Child[a]	-0.017	-0.011
	(.084)	(.075)
Operating Schedule[e]		
Full-time	0.188	0.150
	(.404)	(.359)
Part-week	0.217	0.174
	(.412)	(.367)
Non-Child Care Family Income (000)	.006**	0.004*
	(.002)	(.002)
Agency Pays for 1 or More Children[a]	-0.029	0.022
	(.071)	(.064)
Ethnicity of Provider[f]		
Black, non-Hispanic	-0.399**	-0.392**
	(.106)	(.098)
Hispanic	-0.011	-0.042
	(.120)	(.109)
White, non-Hispanic	-0.076	-0.079
	(.395)	(.053)

TABLE V.9 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Marital Status of Provider[g]		
Married	-0.187 (.154)	-0.013 (.139)
Widowed	-0.543* (.247)	-0.174 (.227)
Separated	0.133 (.312)	0.196 (.278)
Divorced	-0.293 (.169)	-0.128 (.151)
Region[h]		
West	0.245** (.086)	-0.035 (.106)
Midwest	-0.004 (.083)	-0.047 (.098)
Northeast	0.587** (.112)	0.329** (.125)
Urbanicity[i]		
Urban	0.160 (.085)	0.005 (.104)
Suburban	0.217* (.084)	-0.006 (.100)
Distance from Public Transportation[j]		
1-5 miles	-0.060 (.086)	-0.020 (.078)
More than 5 miles	-0.177* (.076)	-0.107 (.069)
Contextual Factors[k]		
Economic vitality		0.411** (.063)
Minority concentration		-0.133 (.068)
Social disorganization		0.014 (.040)
Population age structure		-0.114** (.039)

TABLE V.9 (continued)

Variable	Without Contextual Variables	With Contextual Variables
Percentage of families below poverty, 1979		0.047** (.018)
Population per square mile, 1986 (in 000)		-0.017 (.011)
Percent of females in county labor force, 1980		0.016* (.008)
R^2	0.419	0.551
Sample Size	439	439

SOURCE: Profile of Child Care settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: Numbers in parentheses are standard errors.

[a] Dichotomous variables equal to 1 if program has the given characteristic.

[b] Dichotomous variables describing the provider's education. The omitted category is a high school diploma.

[c] Dichotomous variables indicating the provider's age. The omitted category is under 30 years old.

[d] Dichotomous variables describing the provider's experience. The omitted category is under 2 years experience.

[e] Dichotomous variables describing the provider's schedule. The omitted category is part-day.

[f] Dichotomous variables describing the provider's ethnicity. The omitted category is other ethnic groups.

[g] Dichotomous variables describing the provider's matital status. The omitted category is never married.

[h] Dichotomous variables describing the region in which the provider is located. The omitted category is the South.

[i] Dichotomous variables describing the urbanicity of the program and location. The omitted category is rural.

[j] Dichotomous variables indicating the distance of the provider from public transportation. The omitted cateogry is less than 1 mile.

[k] See Appendix B for further details about the contextual factors.

*Coefficient is statistically significant at the 95 percent confidence level.
**Coefficient is statistically significant at the 99 percent confidence level.

Providers with special child care training charge 17 cents per hour more than those without such training. In addition, providers with more formal education charge more per hour. Providers who are college graduates charge 28 cents more per hour, and those with graduate training charge 67 cents more per hour than those with only a high school degree. These are equivalent to an additional $11 per week for full-time care if providers are college graduates and an additional $27 per week if they have received some graduate training.

In addition to the indicators of quality, the age composition of the children in care is also strongly associated with average hourly fees, net of other factors. Providers who care for younger children charge more. The larger the percentage of children younger than age 3, the higher the average fee. Surprisingly, the number of helpers employed by the provider is associated with lower rather than higher fees when other factors such as program size and child-staff ratios are controlled.

The most important characteristics of the provider that are significantly associated with fees when other factors are controlled are age and years of experience. Providers with just 2 to 4 years of experience charge slightly less, and providers with 5 to 19 years of experience charge substantially less (19 to 26 cents an hour), than providers with less than 2 years of experience in caring for children. These figures amount to a reduction of $8 to $10 per week for full-time care. However, among providers with a given amount of experience, older providers charge slightly more, although this is significant only for providers age 50 to 59 years. Providers age 50 to 59 charge 34 cents an hour (almost $14 per week) more than other providers, all else equal.

Factors Associated with Income from Child Care. After other factors are controlled, larger regulated home-based programs have higher rather than lower average hourly fees. Each additional child increases average fees by about 4 cents per hour. This result suggests that, rather than indicating the amount of income, size reflects the degree of the family day care provider's professionalism and her market orientation.

Although caring for related children from outside the household is not significantly associated with fees, providers who care for more of their own children charge about 6 cents per hour more for each additional child of their own.

Factors Associated with Parents' Ability to Pay. Factors associated with parents' ability to pay are significantly related to average hourly fees. Net of other factors, providers who have higher family income from other sources charge more per hour for care, although the differential is not great (about 6 cents per hour for each additional $10,000 in other family income). Thus, as other income rises, which is a proxy for the income of clientele, the fee charged for care also rises.

Black providers charge 40 cents an hour ($16 per week) less than white providers. Since other family income is controlled, this finding suggests that race proxies the income of the clientele rather than the income of the provider. Widowed providers also charge significantly less for care (54 cents per hour, or $22 per week, less), perhaps reflecting the fact that their time may have lower opportunity costs than that of providers of other marital statuses.

Region and metropolitan area remain significantly associated with average hourly fees when other factors are controlled. Regulated home-based providers in suburban areas charge higher fees than providers in rural areas (by 22 cents per hour, or $8.80 per week). In addition, providers in the Northeast and West charge higher average hourly fees than providers in either the South or the Midwest (by 59 and 25 cents per hour, or $23.60 and $9.60 per week, respectively). Greater distance from public transportation is associated with lower fees, even after metropolitan residence is controlled. Providers located more than 5 miles from public transportation charge 18 cents per hour ($7.20 per week) less than those located within 1 mile of public transportation.

The characteristics of the county in which the provider is located are also strongly associated with the fees charged by regulated home-based programs, net of other factors. Providers that operate in areas with a higher cost of living (based on an index of economic vitality) charge $.41 per hour, or $16 per week, more than providers that operate in counties with a lower cost of living. When contextual variables are controlled, the association between fees and the urban/rural variables disappears. In addition, the association with location in the Northeast becomes weaker, while the association between fees and living in the West disappears completely. No other variables are affected significantly.

Variables that indicate potential demand pressure on the supply of regulated family day care homes--a younger age structure in the county population and higher labor-force participation among mothers of young children--are also associated with the fees charged by providers. The younger the county population, the lower the average fees charged. It is not clear why providers living in a county with a youthful population would charge less for care; it may be that many mothers of these young children become family providers, which relieves some of the pressure for care. Finally, the higher the percentage of women who are in the county labor force, the higher the average fees charged by providers.

Multivariate Analysis of Fees Charged for Individual Children in Regulated Home-Based Settings

Although the preceding analysis provides important information on variations in average hourly fees among regulated home-based providers, it does not provide information on how providers set fees for individual children in their care. Therefore, we conducted a multiple regression analysis of factors associated with the fees charged to individual children, controlling for provider characteristics. The unit of analysis is the individual child in care.[10] All children cared for by the regulated family day care providers in the sample, a total of 3,260 children, are included in the analysis.

Among children's characteristics, their age, their relationship to the provider, and the hours they are in care are significantly associated with the hourly fees charged for their care. Providers charge similar fees for all children younger than age 3 (Table V.10). However, they charge 11 cents per

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[10] The family provider interview obtained information on the characteristics of and fee for each child in care, up to 10 children. Because some regulated home-based providers care for more than 10 children, the first 10 were weighted by the total number of children divided by 10. This procedure assumes that the characteristics of the first 10 are similar to additional children, a reasonable assumption, since the first 10 were selected at random.

TABLE V.10

REGRESSION ANALYSIS OF FACTORS ASSOCIATED WITH INDIVIDUAL CHILD'S HOURLY FEE IN REGULATED HOME-BASED SETTINGS

Variable	Coefficient	Standard Error
Intercept	1.825**	.117
Age of Child[a]		
3-5 years	-0.112**	.029
6-8 years	-0.176**	.047
9+ years	-0.257**	.079
Child is Female[b]	-0.010	.024
Related to Provider[b]	-0.342**	.072
Number of Hours in Care	-0.018**	.001
Number of Months in Care With This Provider	-0.000	.001
Number of Provider's Own Children in Care	-0.030	.016
Quality Indicators		
Group size	-0.003	.006
Child-staff ratio	0.010	.011
Provider has child-related training[b]	0.100	.029
Provider's Education[c]		
Education less than high school	-0.026	.051
Education greater than high school	0.132**	.028
Provider's Years of Experience	-0.009**	.002
Number of Helpers	-0.093**	.020
Marital Status[d]		
Married	-0.167*	.071
Divorced	-0.107	.077
Separated	-0.296*	.129
Widowed	-0.530**	.124
Provider's Age in Years	0.004*	.002

TABLE V.10 (continued)

Variable	Coefficient	Standard Error
Non-Child Care Family Income (in 000s)	0.008**	.001
Region[e]		
West	0.294**	.040
Midwest	0.002	.038
Northeast	0.627**	.054
Urbanicity[f]		
Urban	0.179**	.040
Suburban	0.221**	.038
Distance from Public Transportation[g]		
1-5 miles	-0.095*	.041
More than 5 miles	-0.260**	.035
R^2	0.357	
Sample Size	2,532	

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research Inc., 1990).

[a] Dichotomous variables describing the child's age. The omitted category is under 3 years.

[b] Dichotomous variable equal to 1 if the child or child's provider has the given characteristic.

[c] Dichotomous variables describing the provider's education. The omitted category is high school education.

[d] Dichotomous variables describing the provider's marital status. The omitted category is never married.

[e] Dichotomous variables describing the region in which the child's provider is located. The omitted category is the South.

[f] Dichotomous variables describing the urbanicity of the area in which the child's provider is located. The omitted category is rural.

[g] Dichotomous variables describing the distance of the child's provider from public transportation. The omitted category is under 1 mile.

*Coefficient is statistically significant at the 95 percent confidence level.
**Coefficient is statistically significant at the 99 percent confidence level.

hour ($4.40 per week) less for children ages 3 to 5, 18 cents an hour ($7.20 per week) less for children ages 6 to 8, and 26 cents an hour ($10.40 per week) less for those age 9 and older. Regulated home-based providers charge significantly less for the care of children who are related to but not living with them (34 cents per hour, or $13.60 per 40-hour week, less). Providers also charge lower hourly fees for children who are in their care for more hours per week.

SUMMARY AND CONCLUSIONS

In summary, the most significant finding is that fees and quality indicators vary together; the higher the quality, the higher the average fees. Lower ratios of children to staff and a higher educational level among providers are associated with higher fees, net of a variety of other factors. Previous research based on parents' reports did not find a consistent relationship between fees and child-staff ratios (Waite et al., 1988), and this research has been cited as evidence that parents need not necessarily pay more to purchase higher quality care for children. However, the data obtained directly from programs in the PCS Study suggest that, in fact, most of the factors associated with higher costs for providers are passed along to consumers through higher fees.

The factors that are associated with the ability of parents to pay are also associated with average hourly fees. For example, urbanicity and cost of living have strong effects on the average fees charged for early education and care. The higher the income of the provider, the provider's clientele, and the cost of living in the neighborhood in general, the higher the fees charged. County and regional cost of living and economic conditions generally affect fees both in home-based and center-based care. Pressures on fees are also exerted by greater female labor-force participation, a larger number of female-headed households, and an aging rather than a youthful population.

Fee-setting in home-based programs also appears to be much more localized than fee-setting in centers. Controlling for the socioeconomic characteristics of the county removed variation between regulated home-based providers by urban residence and region. In contrast, substantial regional and urban/rural variation between centers remained after such controls were introduced.

Finally, the organizational characteristics of centers are strongly related to fees after indicators of quality and other factors are controlled, but these relationships reflect competition and subsidization more than the profit motive, since fees do not differ by profit/nonprofit status.

VI. TRENDS IN CENTER-BASED AND REGULATED HOME-BASED EARLY EDUCATION AND CARE, 1976-1990

The supply of early education and care has increased dramatically during the last two decades. Between 1976 and the beginning of 1990, the number of center-based education and care programs tripled, and the number of children cared for in center-based programs increased fourfold. During the same period, the number of regulated home-based programs did not change, but the number of children cared for in these programs increased by 50 percent.

This chapter examines growth trends in the level and characteristics of the supply of regulated home-based and center-based care since the late 1970s in order to assess three issues: the extent to which the characteristics of care have changed over time, the extent to which fees for care have changed relative to the cost of living and family incomes, and changes in the quality of care that is available. The first section describes the data used in the analysis, and the following two sections examine the trends in the supply and characteristics of center-based and regulated home-based early education and care programs, respectively.

DATA SOURCES

The Profile of Child Care Settings (PCS) Study is the first comprehensive national study of providers of regulated home-based and center-based early education and care since the mid- to late-1970s. Because it is more comprehensive than earlier studies, subsamples of the PCS data must be selected for comparisons with previous data. Several previous surveys were considered for the analysis of trends, including the 1970 Day Care Surveys, the 1976-77 National Day Care Survey (NDCS) and the 1976-80 National Day Care Home Survey (NDCHS), and the 1986 Study of the Child Care Food Program. The 1976-77 NDCS and the 1976-80 NDCHS were chosen for the analysis primarily because their study designs were most similar to the PCS Study (see Appendix B). Subsamples from the 1990 PCS data were selected to represent all of those programs that met the sample criteria imposed in the earlier surveys. Thus, the data reported in this chapter do not represent all centers or all regulated family day care homes in the United States.

The 1976-77 NDCS was a nationally representative survey of centers that restricted its coverage to centers operating at least 25 hours per week and 9 months per year, with a licensed capacity of 13 or more children and enrollments including 50 percent or fewer handicapped children. The NDCS included both centers that charged fees and those that did not. It included school-operated and Head Start programs, as well as other types of centers and preschools. Like the PCS study, centers were selected from national lists constructed from state licensing lists supplemented with lists of unlicensed centers.

The 1976-80 NDCHS was viewed as a series of case studies of home-based care.[1] The sample included both regulated and unregulated family day care homes in three urban areas (Los Angeles, Philadelphia, and San Antonio). To be eligible for the NDCHS, a family day care home had to enroll at least 1 child between 12 and 60 months of age for pay and for at least 20 hours per week. Regulated nonsponsored and sponsored family day care homes were stratified by site and provider's race and selected from licensing and sponsoring organization lists. For the analysis of trends, a subsample of the PCS data was selected according to the same selection criteria used by the NDCHS. In addition, only regulated family day care homes in metropolitan areas were included in the analysis.

CENTER-BASED EARLY EDUCATION AND CARE PROGRAMS

The following sections describe trends since 1976-77 in enrollment and staffing, operational characteristics, services, indicators of the quality of care, and fees and expenditures of full-time[2] center-based early education and care programs. The trend comparisons are presented in Table VI.1. Only characteristics that were defined in comparable ways are included in the comparisons. All items taken directly from the surveys, such as enrollment and staffing measures, as well as constructed variables such as utilization rates and child-staff ratios, were defined in comparable ways in the NDCS and PCS studies.

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[1] Although the 1976-80 NDCHS is not a nationally representative study, it provides the best comparison possible for the analysis of trends. The 1970 Day Care Survey was national in scope but included a very small sample of family day care homes (regulated and nonregulated) and included very few questions about the characteristics of care provided. The 1986 Study of the Child Care Food Program included only providers that were participating in the food program and was conducted only four years prior to the PCS study.

[2] For the analysis of trends, full-time programs are defined as programs that operate at least 25 hours per week.

Enrollments and Staffing

In the NDCS study, a total of 18,307 centers in the United States in 1976-77 met the sample selection criteria. Their total enrollment was 897,700 children; their average enrollment was 49 children per center. The number of comparable centers tripled by 1990 to 55,960, and the number of children increased fourfold, to 3.8 million. The average number of children per center increased from 49 to 68, reflecting the greater proportional increase in enrollment than in the number of centers (Table VI.1).

The increased average enrollment in full-time centers was accommodated through an increase in the average licensed capacity of centers, which rose from of 55 to 67 children. Consistent with the higher rate of increase in enrollment than in programs, the average utilization rate of full-time centers also rose, from 80 to 88 percent. The rate of absence has stayed about the same (12 to 13 percent, on average).

The age distribution of enrollment in centers shifted between 1976-77 and 1990 toward younger ages. The proportion of children younger than age 3 is double today (20 percent) what it was in 1976-77 (10 percent). The proportion of children age 3 and 4 is about the same (50 percent). The proportion of children age 5 dropped from 26 percent in 1976-77 to 9 percent in 1990, reflecting the greater availability of kindergarten programs in 1990. The proportion of school-age children in care rose slightly from 14 to 17 percent.

TABLE VI.1

TRENDS IN FULL-TIME[a] CENTER-BASED EARLY EDUCATION AND CARE: 1976-77 TO 1990

	1976-77	1990
Total Number of Programs	18,307	55,960
ENROLLMENT		
Total Number of Children Enrolled	897,700	3,800,000
Average Number of Children Enrolled	49	68
Enrollment by Age		
Under 1 year	1 %	4 %
1 year	3 %	5 %
2 years	6 %	11 %
3 years	19 %	22 %
4 years	31 %	31 %
5 years	26 %	9 %
6 or more years	14 %	17 %
Enrollment by Race/Ethnicity		
White, non-Hispanic	63 %	67 %
Black, non-Hispanic	28 %	22 %
Hispanic	9 %	7 %
Other	n.a.	4 %
Utilization Rate	80 %	88 %
Absence Rate	12 %	13 %
OPERATIONAL CHARACTERISTICS		
Average Years in Operation	8	11
Legal Status and Sponsorship		
For-profit:	41 %	42 %
Independent	35 %	35 %
Chain	6 %	8 %
Nonprofit:	59 %	58 %
Independent	19 %	25 %
Head Start	4 %	4 %
Religious-sponsored	17 %	13 %
School-sponsored	3 %	9 %
Government-sponsored	7 %	2 %
Community-sponsored	8 %	4 %
Other sponsor	2 %	2 %

TABLE VI.1 (continued)

	1976-77	1990
Average Hours per Day	11	11
Average Hours per Week	54	53
Average Weeks per Year	51	49
STAFF		
Average Number of Classroom Staff	8	10
Average Number of Volunteers	2	2
Ages of Preschool Teachers		
Under 18	7 %	0 %
18-34 years	66 %	49 %
35-49 years	19 %	40 %
50 or more years	8 %	11 %
Race/Ethnicity of Classroom Staff		
White	66 %	76 %
Black	28 %	16 %
Hispanic	n.a.	5 %
Other	6 %	4 %
Teacher Turnover	15 %	19 %
Years of Schooling Completed by Teachers		
Under 12	10 %	1 %
12	35 %	16 %
13 to 15	26 %	42 %
16	29 %	31 %
More than 16		11 %
Average Annual Salary	\$11,560-\$16,801 [b]	\$12,390
CLASSROOM STRUCTURE		
Average Group Size	13.5	15.7
Average Age Range in Groups (Months)	12	20
Average Group Size by Age		
Under 1 year	8.9	8.5
1 year		10.1
2 years	12.8	13.6
3 years	13.9	16.1
4 years	14.3	16.7

TABLE VI.1 (continued)

	1976-77	1990
5 years	15.0	16.7
6 or more years	15.7	18.7
Average Child-Staff Ratio	6.8	8.5
SERVICES		
Parental Involvement	59 %	84 %
Meals	99 %	95 %
Child Care Food Program	57 %	31 %
FEES AND EXPENDITURES		
Average Hourly Fee (Excluding Programs With No Fees)	\$1.46-\$2.00 [b]	\$1.51
Percentage of Budget Paid by Public Agency	29 %	19 %
Percentage of Budget Paid by Parental Fees	70 %	76 %

SOURCE: The data for 1976-77 are from the National Day Care Study conducted by Abt Associates. The data for 1990 are from the PCS Study (Mathematica Policy Research, Inc., 1990). See Appendix Table B.1 for more information on these data sources.

[a] For the analysis of trends, full-time programs are defined as programs that operate at least 25 hours per week.

[b] In 1989 dollars (adjusted for inflation).

The distribution of children by ethnicity in 1990 is about the same as it was 15 years earlier. In 1976-77, 63 percent of the children enrolled in centers were white, 28 percent were black, and 9 percent were Hispanic. In early 1990, 67 percent of children enrolled in centers were white, 22 percent were black, 7 percent were Hispanic, and 4 percent were members of other racial or ethnic groups. The proportion of staff who are members of minority groups has decreased relative to the proportion of enrollment that is nonwhite.

Operational Characteristics

The average number of years centers have been operating has increased from 8 years in 1976-77 to 11 years in 1990. The operating schedules (hours per day and days per week) of full-time centers have not changed, but the average number of weeks open per year has fallen by 2 weeks per year.

The distribution of full-time centers by legal status (profit/nonprofit) has not changed since 1976-77; 41 percent were operated for profit in 1976-77, compared with 42 percent in 1990. However, the auspices of nonprofit centers have changed. In 1990, relatively more nonprofit centers are independent or sponsored by schools, and relatively fewer nonprofit centers are sponsored by the government, religious organizations, or community groups.

Characteristics of Staff

The number of classroom staff in center-based early education and care programs increased by 25 percent between 1976-77 and 1990. The average number of volunteers caring for children stayed about the same. Classroom staff employed by full-time centers in 1990 were older and less likely to be members of minority ethnic groups than were classroom staff in 1976-77. In 1990, 51 percent of preschool teachers were 35 years old or older, compared with only 27 percent in 1976-77. The proportion of classroom staff who are white increased from 66 to 76 percent during the period.

Indicators of the Quality of Care--Staffing and Classroom Structure

The evidence on trends in the quality of center-based care is mixed. On the one hand, changes in the educational levels of staff suggest that the quality of care provided by full-time centers has improved dramatically. On the other hand, according to most other indicators of quality, the average quality of care provided in full-time centers has declined since 1976-77. Whereas in 1976-77 only 29 percent of teachers had 16 or more years of schooling, in 1990 42 percent of teachers had 16 or more years of schooling. Moreover, in 1976-77, 45 percent of teachers had 12 or fewer years of schooling, compared with only 17 percent in 1990. These levels of schooling are considerably higher than those of the average population; in 1988, only 17 percent of white females and 11 percent of black females age 25 and older had completed 4 or more years of college (U.S. Statistical Abstract, 1990).

While educational levels of preschool teachers have increased, changes in other quality indicators suggest that the quality of care in centers may have declined. Average group sizes increased by approximately 16 percent between 1976-77 and 1990, from an average of 13.5 to 15.7 children per group. Average group sizes have risen in all age groups, with slightly larger increases in groups of older children. The average child-staff ratio maintained by centers also rose between 1976-77 and 1990, from 6.8 to 8.5 children per staff member (25 percent). This means that more children are cared for by a single caregiver today than in 1976-77. In addition to being larger and in the care of relatively fewer staff members, the groups of children cared for together are more diverse in 1990 than they were in 1976-77. The age range of children enrolled in groups increased from 12 to 20 months between 1976-77 and 1990.

The average annual teacher turnover rate in full-time centers rose by 4 percentage points between 1976-77 and 1990, from 15 to 19 percent. Since higher teacher turnover is associated with poorer child outcomes (Whitebook et al., 1990), trends in this indicator of quality also suggest that the average quality of programs may have declined.

Services

The proportion of full-time centers reporting parental involvement rose from 59 percent in 1976-77 to 84 percent in 1990. The proportion reporting meal services has declined slightly, but is still considerably above 90 percent. The proportion of centers participating in the Child and Adult Care Food Program appears to have declined over the period, from 57 percent in 1976-77 to 31 percent in 1990.

Fees and Expenditures

In real terms, parental fees for center-based care have not changed at all since 1976-77. They averaged $1.46 to $2.00 per hour in 1976-77, assuming an average of 30 hours per week in care, and $1.51 per hour in 1990. Nevertheless, the average proportion of the center budget met with parental fees increased from 70 to 76 percent, while the average proportion of the budget met with government funds declined from 29 to 19 percent. The decline in public funding reflects changes over the period in federal child care financing. Currently, funds go to states to allocate as they wish and a larger share of the total federal funds for child care are spent through the child care tax credit.

The average wages paid by full-time centers have not increased. Despite the substantial increases in the educational levels of teachers since 1976-77, wages of teachers ranged from $11,560 to $16,801 per year in real terms in 1976-77, compared with an average of $12,390 per year in 1990.

REGULATED HOME-BASED PROGRAMS

The following sections examine trends in the number of regulated home-based early education and care providers and their enrollment, indicators of the quality of care provided, other provider characteristics, services provided, and fees and income from child care. These trend comparisons are presented in Table VI.2.

TABLE VI.2

TRENDS IN REGULATED HOME-BASED EARLY EDUCATION AND CARE, 1976-80 TO 1990[a]

	1976-80		1990	
	Sponsored Providers	Nonsponsored Providers	Sponsored Providers	Nonsponsored Providers
Total Number of Providers	30,000[a]	43,750[a]	18,620	57,075
ENROLLMENT				
Total Enrollment	129,000	175,000	117,800	345,900
Enrollment by Age				
0-18 months	18.5 %	25.4 %	24.4 %	24.3 %
19-36 months	42.0 %	32.5 %	35.4 %	39.1 %
37-60 months	23.7 %	23.2 %	24.5 %	24.4 %
61+ months	15.7 %	19.0 %	15.8 %	14.2 %
Enrollment by Relationship				
Average Number of Nonresident Children	4.3	4.0	6.3	6.1
Average Number of Nonresident Related Children	0.2	0.3	0.2	0.2
Average Number of Own Children	1.0	1.2	0.9	1.0
PROVIDER CHARACTERISTICS				
Average Years of Experience	4.9	6.6	6.8	7.1
Percentage with Child-Related Training	73 %	31 %	79 %	63 %
Average Highest Grade Completed	11.8	12.0	13.4	13.0
Mean Age (Years)	44.4	44.1	38.3	39.5
Median Age (Years)	44.5	42.3	35	38
Percentage Married	73 %	75 %	86 %	81 %
LOCATION				
Percentage Urban	100 %	100 %	100 %	100 %
FEES				
Average Hourly Fee (Including 0's)	$1.64 [b]	$1.47 [b]	$1.52	$1.67
Average Weekly Fee (Excluding 0's)	$61.68 [b]	$53.00 [b]	$50.86	$52.39
Average Hourly Fee by Race of Provider				
White	$2.34 [b]	$1.59 [b]	$1.64	$1.71
Black	$1.45 [b]	$1.31 [b]	$1.18	$1.31
Hispanic	$1.36 [b]	$1.36 [b]	$1.68	$1.63
Other	n.a.	n.a.	$1.62	$2.03

TABLE VI.2 (continued)

	1976-80		1990	
	Sponsored Providers	Nonsponsored Providers	Sponsored Providers	Nonsponsored Providers
INCOME				
Average Total Household Income	\$25,883 [b]	\$27,554 [b]	\$34,127	\$35,905
Average Income from Child Care	\$13,977 [b]	\$9,644 [b]	\$11,471	\$10,944
Average Percentage of Income from Child Care	54 %	35 %	35 %	37 %

SOURCE: The data for 1976-80 are from the National Day Care Home Study conducted by Abt Associates. The data for 1990 are from the PCS Study (Mathematica Policy Research, 1990).

[a] Estimated from licensing lists.

[b] In 1989 dollars (adjusted for inflation).

Number of Programs and Enrollment

Just as the number of programs and the enrollment in full-time centers have increased since the late 1970s, the estimated number of regulated home-based providers and enrollment in regulated home-based programs in metropolitan areas have also increased since the late 1970s. Between 1976 and 1990 the estimated number of providers and enrollment in all nonsponsored home-based programs rose by 30 percent and 100 percent, respectively. In contrast, the number of providers and enrollment in sponsored family day care programs declined by 38 percent and 9 percent, respectively. Sponsored care is becoming less prevalent in regulated family day care than it was when the NDCHS was conducted. In 1990, only 23 percent of regulated home-based providers in metropolitan areas reported being sponsored by a group that organizes family day care, compared with 42 percent of regulated homes in the three sites in 1976-80 (Table VI.2).

Consistent with the fact that total enrollment in regulated home-based programs increased more than the number of providers, the average number of children cared for in regulated home-based settings has increased since the late 1970s. The number of nonresident children increased from 4 to 6 children in both nonsponsored and sponsored home-based programs. The average number of nonresident related children and the average number of the provider's own children in care remain at .2 and 1 child, respectively. Therefore, the average total number of children cared for in regulated home-based settings has increased from 5.5 to 7.3 children between 1976 and 1990.

The age distribution of children enrolled in regulated home-based programs in metropolitan areas has not changed substantially since the late 1970s. Approximately two-thirds of the children enrolled are infants and toddlers, about one-quarter are preschool children age 3 and older, and the remainder are school-age children. The age distribution of enrollment in sponsored and nonsponsored family day care homes has become more similar between 1976 and 1990. The proportion of children under 18 months in sponsored homes increased slightly between 1976 and 1990, while no change occurred in nonsponsored homes. The fact that sponsored homes had fewer such children in 1976 makes the age distribution of enrollments in 1990 more similar.

Indicators of the Quality of Care--Staffing and Training

Maximum group size, which is equivalent to total enrollment, is an indicator of the quality of care provided in regulated home-based settings. The increases in total enrollment suggest that the quality of care provided in regulated home-based settings may have declined over the past decade, although the number of children per group is still within acceptable ranges based upon professional recommendations for group sizes.

Another important indicator of the quality of care is the ratio of the number of children to the number of staff members. In the 1976-80 NDCHS, the researchers concluded that "none of the sites had a large enough proportion of homes with multiple caregivers to warrant the construction and analysis of separate ratio variables" (Singer et al., 1980, p. 84). Therefore, they focused on group size and did not calculate child-staff ratios. Based on child-staff ratios in 1990 and group sizes in 1976-80, the quality of care provided in regulated home-based settings in metropolitan areas does not appear to have changed between 1976 and 1990. The average full-time-equivalent child-staff ratio in 1990 is 4 children per staff member, which makes regulated family day care homes in 1990 roughly comparable to those studied in 1976-80.

In contrast to the changes in quality indicated by group sizes in regulated home-based settings, the quality suggested by formal education, job experience, and child-related training of providers appears to have increased. Levels of formal education have increased by 1 year. In 1976, the average number of years of schooling was 12 years (a high school diploma); by 1990, the average educational attainment had risen to 13 years of schooling (1 year of college). In addition, regulated home-based providers in 1990 are more experienced in caring for children than they were in 1976-80. The average number of years that both sponsored and nonsponsored home-based programs have been operating has risen from 4.9 and 6.6 years in 1976-80 to 6.8 and 7.1 years in 1990. Finally, the proportion of nonsponsored home-based providers who have received child-related training increased from 31 to 63 percent between 1976-80 and 1990. These changes occurred primarily among nonsponsored providers; similarly, the proportions of sponsored providers in both the 1976-80 and 1990 surveys who reported having received child-related training are high (about 75 percent).

Other Provider Characteristics

The demographic characteristics of regulated home-based providers have changed as well. Both sponsored and nonsponsored providers in 1990 are younger on average than were comparable providers in 1976-80 (age 38 and 40 respectively, compared with age 44). In addition, a higher proportion of sponsored and nonsponsored providers are married (86 and 81 percent, respectively, compared with 73 and 75 percent).

Fees and Income

In real terms, the fees charged by nonsponsored home-based programs do not appear to have changed since 1976-80. When adjusted for inflation,[3] weekly fees in nonsponsored home-based settings were $53 per week in 1976-80 and $52 per week in 1990. However, average hourly fees have risen by about 14 percent in nonsponsored homes. This trend is very similar to the trends in fees based upon parents' reports of child care expenditures in family day care (Hofferth, 1987). According to parents' reports, family day care expenditures rose by about 7 percent over the period.

While the average weekly fees charged by nonsponsored programs remained constant and the average hourly fees rose between 1976-80 and 1990, the weekly fees charged by sponsored home-based providers declined by 21 percent and the average hourly fees declined by about 7 percent over the period to the same level as nonsponsored programs.

Trends in the average hourly fees charged by home-based programs differ among white, black, and Hispanic providers. The average hourly fees charged by nonsponsored white and Hispanic providers rose, while the fees charged by nonsponsored black providers remained approximately the same. The average hourly fees charged by sponsored white and black providers dropped substantially, while the average fees charged by sponsored Hispanic providers rose.

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[3] Inflation was 134 percent between 1976 and December 1989.

Household income among nonsponsored and sponsored home-based providers in metropolitan areas has risen by 30 percent in real terms since the late 1970s. However, income from child care rose by only 13 percent for nonsponsored homes. It declined by 18 percent for sponsored homes. The percentage of household income from child care declined for sponsored homes, from 54 to 35 percent, whereas it remained constant for nonsponsored homes (approximately 35 percent).

SUMMARY AND CONCLUSIONS

Based on comparisons of the PCS Study findings with the 1976-77 NDCS and the 1976-80 NDCHS, it appears that the number of formal early education and care programs has increased substantially since the late 1970s. Moreover, the size of both center-based and regulated home-based programs has also increased, so that total enrollment in both types of settings has increased even more than the number of programs.

The characteristics of children enrolled in formal early education and care programs have also changed. There has been a shift toward caring for younger children in both center-based and regulated home-based settings; a higher proportion of children are age 2 or younger, and a smaller proportion are age 3 and older. This shift reflects the increases in the proportions of mothers of very young children who are in the labor force. While the shift toward younger children is relatively greater in center-based settings, infants and toddlers still constitute a small proportion of the total enrollment in these settings.

The evidence on trends in the quality of care available is mixed, varying according to the setting and the indicator of quality under consideration. Based on average group sizes and average child-staff ratios, it appears that the quality of care provided in center-based settings may have declined. The quality of care provided in regulated home-based settings does not appear to have changed.

Although average group sizes in regulated home-based settings have increased, it is important to note that average group sizes in regulated home-based settings are still small, and child-staff ratios have not increased.

In contrast to the trends in group size and ratios, the trends in the qualifications of caregivers suggest that the quality of care provided in early education and care settings has improved. The average levels of education and training received by both regulated home-based providers and center staff have increased substantially over the past 15 years. Not only has the education of providers increased, but it has more than kept pace with the general increase in levels of education among women. Providers today, as they were 15 years ago, continue to be much better educated than the population as a whole. Nevertheless, the data suggest a decline in the real wages of caregiving staff over the last 15 years, despite their increased levels of education and training.

The average hourly fees charged by center-based and regulated home-based programs have changed relatively little. However, in centers, the proportion of program income obtained from parental fees has increased, and the proportion obtained from public sources has declined over the last 15 years. Thus, it appears that fees have been kept low by increasing group sizes and child-staff ratios and keeping staff salaries low.

Regulated home-based providers also charge about the same today as they did 15 years ago, in real terms. Consequently, while the total household incomes of regulated providers have increased 30 percent in real terms since the late 1970s, income from caregiving has increased by only 13 percent over the period.

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APPENDIX A

SUPPLEMENTAL TABLES

TABLE A.1

SELECTED CHARACTERISTICS OF CENTERS BY OPERATING SCHEDULE

	Full-Time[a] Programs	Part-Time Programs
Percentage of Programs That Are Licensed	97 *	88
Average Licensed Capacity	67 *	43
Average Enrollment	68 *	49
Average Distribution of Enrollment By Age (%)		
0 to 11 months	4	1
12 to 23 months	5	1
24 to 35 months	11 *	2
36 to 47 months	21	21
48 to 59 months	28 *	50
60 to 71 months	8 *	16
School-age	23 *	10
Average Percentage of Children Who Are:		
White, non-Hispanic	67 *	77
Black, non-Hispanic	22 *	14
Hispanic	7	7
Asian	3	2
American Indian	1	1
Average Percentage of Children Whose Parents Receive Public Assistance	14 *	25
Average Percentage of Teachers With:		
Graduate degree	10 *	18
College degree	29 *	51
Associate's degree	13	10
CDA	12	12
Some college	18 *	7
High school diploma	18 *	2
Less than high school	1 *	0
Average Hourly Wage of Teachers	$6.84 *	$10.42
Average Annual Rate of Teacher Turnover (%)	27 *	17
Average Group Size by Age of Youngest Child		
0 to 11 months	8	12
12 to 23 months	10	13
24 to 35 months	14	13
36 to 47 months	16	16
48 to 59 months	17	17
60 or more months	18	20

TABLE A.1 (continued)

	Full-Time[a] Programs	Part-Time Programs
Average Child/Staff Ratio by Age of Youngest Child		
0 to 11 months	4.1	6.6
12 to 23 months	5.7	6.7
24 to 35 months	7.5	6.8
36 to 47 months	9.0 *	8.0
48 to 59 months	10.1 *	8.9
60 or more months	11.0	9.8
Average Hourly Fee (Excluding 0's)		
All ages	$1.47 *	$2.02
0 to 11 months	$1.32	$1.80
12 to 23 months	$1.45	$2.16
24 to 35 months	$1.49	$3.09
36 to 47 months	$1.66 *	$2.27
48 to 59 months	$1.67 *	$2.17
60 to 71 months	$1.63	$1.83
School-age	$1.67	$1.91
Percentage of Programs That Provide:		
Physical examinations	11 *	34
Dental examinations	14 *	35
Hearing, speech, vision testing	54 *	74
Psychological testing	21 *	47
Cognitive development testing	42 *	65
Social development testing	41 *	62
Average Percentage of Budget Met With:		
Parental fees	78 *	55
Government funds	17 *	38
Percentage of Programs Receiving In-Kind Donations	28 *	48
Average Percentage of Budget Spent On Salaries and Benefits	61	64
Sample Size	1,366	619

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Full-time programs operate 5 days per week and at least 7 hours per day.

*Statistically significant difference at the 95 percent confidence level.

TABLE A.2

SELECTED CHARACTERISTICS OF CENTERS BY URBANICITY

	(A) Urban	(B) Suburban	(C) Rural
Percentage of Programs That Are Licensed	94	96	92
Average Licensed Capacity	69 [c]	65 [c]	38 [a,b]
Average Enrollment	72 [c]	66 [c]	42 [a,b]
Average Distribution of Enrollment By Age (%)			
0 to 11 months	3	3	3
12 to 23 months	4	4	4
24 to 35 months	9	8	7
36 to 47 months	22 [c]	21 [c]	19 [a,b]
48 to 59 months	34	32 [c]	37 [b]
60 to 71 months	8 [c]	10 [c]	14 [a,b]
School-age	20	21	15
Average Percentage of Children Who Are			
White, non-Hispanic	57 [b,c]	78 [a]	82 [a]
Black, non-Hispanic	26 [b,c]	14 [a]	14 [a]
Hispanic	11 [b,c]	5 [a]	3 [a]
Asian	5 [b,c]	1 [a]	1 [a]
American Indian	0	0	1
Average Percentage of Children Whose Parents Receive Public Assistance	18	14	19
Average Percentage of Teachers With:			
Graduate degree	15 [c]	11	9 [a]
College degree	37	35	31
Associate's degree	14	11	12
CDA	10	14	12
Some college	14	15	17
High school diploma	9 [b,c]	14 [a]	18 [a]
Less than high school	0	1	1
Average Hourly Wage of Teachers	$8.42 [b,c]	$6.92 [a]	$6.25 [a]
Average Annual Rate of Teacher Turnover (%)	25	25	23
Average Group Size by Age of Youngest Child			
0 to 11 months	9	9	8
12 to 23 months	11	10	10
24 to 35 months	15 [b]	13 [a]	13
36 to 47 months	17 [c]	17 [c]	14 [a,b]
48 to 59 months	17	17	16

TABLE A.2 (continued)

	(A) Urban	(B) Suburban	(C) Rural
60 or more months	18 [c]	19 [c]	15 [a,b]
Average Child/Staff Ratio by Age of Youngest Child			
0 to 11 months	4.0	4.3	4.6
12 to 23 months	5.8	5.8	6.5
24 to 35 months	7.1 [c]	7.5	8.2 [a]
36 to 47 months	8.7	8.9	8.6
48 to 59 months	9.4 [b]	10.2 [a]	9.6
60 or more months	11.0	11.3	10.1
Percentage of Programs That Provide:			
Physical examinations	15	10	15
Dental examinations	18	12	17
Hearing, speech, vision testing	62 [b,c]	51 [a]	50 [a]
Psychological testing	26	19	23
Cognitive development testing	48	41	39
Social development testing	46	40	38
Average Hourly Fee (Excluding 0's)			
All ages	$1.79 [b,c]	$1.55 [c]	$1.31 [a,b]
0 to 11 months	$1.48 [c]	$1.33 [c]	$1.06 [a,b]
12 to 23 months	$1.67	$1.38	$1.19
24 to 35 months	$1.81 [c]	$1.55	$1.28 [a]
36 to 47 months	$2.06 [c]	$1.75	$1.56 [a]
48 to 59 months	$2.12 [c]	$1.82	$1.57 [a]
60 to 71 months	$1.80 [b,c]	$1.56 [a]	$1.42 [a]
School-age	$1.79	$1.68	$1.56
Average Percentage of Budget Met With:			
Parental fees	69 [b]	79 [a,c]	67 [b]
Government funds	25 [b]	17 [a,c]	28 [b]
Percentage of Programs Receiving In-Kind Donations	32	29	36
Average Percentage of Budget Spent On Salaries and Benefits	64	60	61
Sample Size	933	713	443

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Significantly different from urban programs at the 95 percent confidence level.

[b] Significantly different from suburban programs at the 95 percent confidence level.

[c] Significantly different from rural programs at the 95 percent confidence level.

TABLE A.3

SELECTED CHARACTERISTICS OF CENTERS BY REGION

	(A) Northeast	(B) South	(C) Midwest	(D) West
Percentage of Programs That Are Licensed	96	95	92	97
Average Licensed Capacity	54 ^{b}	69 ^{a,c,d}	50 ^{b}	58 ^{b}
Average Enrollment	58	60	60	74
Average Distribution of Enrollment By Age (%)				
0 to 11 months	2	4	2	2
12 to 23 months	3	6 ^{d}	2	3 ^{b}
24 to 35 months	6	11	5	8
36 to 47 months	26 ^{b,c}	19 ^{a,d}	20 ^{a,d}	22 ^{b,c}
48 to 59 months	41 ^{b}	28 ^{a,c,d}	40 ^{b}	34 ^{b}
60 to 71 months	9 ^{c}	8 ^{c}	17 ^{a,b,d}	8 ^{c}
School-age	13	23	14	23
Average Percentage of Children Who Are:				
White, non-Hispanic	76 ^{b,c,d}	62 ^{a,c}	85 ^{a,b,d}	64 ^{a,c}
Black, non-Hispanic	14 ^{b}	31 ^{a,c,d}	10 ^{b}	8 ^{b}
Hispanic	7 ^{c,d}	5 ^{d}	2 ^{a,d}	18 ^{a,b,c}
Asian	2 ^{d}	1 ^{d}	1 ^{d}	9 ^{a,b,c}
American Indian	1	0	1	1
Average Percentage of Children Whose Parents Receive Public Assistance	21	15	17	16
Average Percentage of Teachers With:				
Graduate degree	21 ^{b,c,d}	10 ^{a}	12 ^{a}	10 ^{a}
College degree	46 ^{b,d}	24 ^{a,c,d}	47 ^{b,d}	33 ^{a,b,c}
Associate's degree	13 ^{d}	9 ^{d}	13 ^{d}	20 ^{a,b,c}
CDA	7 ^{b}	14 ^{a}	10	13
Some college	8 ^{b,d}	19 ^{a,c}	10 ^{b,d}	20 ^{a,c}
High school diploma	4 ^{b}	24 ^{a,c,d}	7 ^{b}	5 ^{b}
Less than high school	0 ^{b}	1 ^{a,c,d}	0 ^{b}	0 ^{b}
Average Hourly Wage of Teachers	\$9.63 ^{b,c,d}	\$6.58 ^{a,d}	\$7.58 ^{a}	\$7.89 ^{a,b}

TABLE A.3 (continued)

	(A) Northeast	(B) South	(C) Midwest	(D) West
Average Annual Rate of Teacher Turnover (%)	24	25	24	26
Average Group Size by Age of Youngest Child				
0 to 11 months	10	8	9	10
12 to 23 months	11	10	12	12
24 to 35 months	15[b]	12[a,c,d]	15[b]	15[b]
36 to 47 months	17	16	15	17
48 to 59 months	17	16	17	17
60 or more months	16	18	18	18
Average Child/Staff Ratio by Age of Youngest Child				
0 to 11 months	3.4	4.4	4.5	4.3
12 to 23 months	4.9	6.1	5.8	6.0
24 to 35 months	6.9	7.5	7.4	7.8
36 to 47 months	7.7[b,d]	9.5[a,c]	8.4[b]	8.9[a]
48 to 59 months	8.5[b,c]	10.4[a]	9.7[a]	9.4
60 or more months	7.9[b,c,d]	11.8[a]	11.2[a]	10.4[a]
Percentage of Programs That Provide:				
Physical examinations	13	12	15	14
Dental examinations	15	16	14	17
Hearing, speech, vision testing	58	52	61	52
Psychological testing	27	19	28	21
Cognitive development testing	52[b]	34[a,c,d]	49[b]	48[b]
Social development testing	49[b]	34[a,c,d]	46[b]	49[b]
Average Hourly Fee (Excluding 0's)				
All ages	$2.18[b,c,d]	$1.28[a,c,d]	$1.63[a,b]	$1.73[a,b]
0 to 11 months	$2.07	$1.14[c]	$1.55[b]	$1.83
12 to 23 months	$2.34	$1.26	$1.53	$1.61
24 to 35 months	$2.53[b,c,d]	$1.29[a,d]	$1.68[a]	$1.83[a,b]
36 to 47 months	$2.59 b,c,d	$1.36[a,c,d]	$1.78[a,b]	$1.98[a,b]
48 to 59 months	$2.53[b,c]	$1.41[a]	$1.76[a]	$2.02
60 to 71 months	$2.24	$1.55	$1.66	$1.70
School-age	$2.13	$1.58	$1.68	$1.90
Average Percentage of Budget Met With:				
Parental fees	65[b,d]	74[a]	70	76[a]
Government funds	29	21	23	20

TABLE A.3 (continued)

	(A) Northeast	(B) South	(C) Midwest	(D) West
Percentage of Programs Receiving In-Kind Donations	38 [b]	24 [a,c,d]	38 [b]	37 [b]
Average Percentage of Budget Spent On Salaries and Benefits	65 [b]	58 [a,d]	63	66 [b]
Sample Size	368	821	510	390

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

[a] Significantly different from programs located in the Northeast at the 95 percent confidence level.

[b] Significantly different from programs located in the South at the 95 percent confidence level.

[c] Significantly different from programs located in the Midwest at the 95 percent confidence level.

[d] Significantly different from programs located in the West at the 95 percent confidence level.

TABLE A.4

SELECTED CHARACTERISTICS OF CENTERS BY AUSPICE

	(A) Head Start	(B) Public School-Based Nonprofit	(C) Religious-Sponsored Nonprofit	(D) Other Sponsored Nonprofit	(E) Independent Nonprofit	(F) For-Profit Chain	(G) Independent For-Profit
Total Number of Programs	6,437 (619)	5,469 (676)	10,622 (925)	5,646 (721)	17,963 (1,303)	4,181 (663)	20,941 (1,642)
Percentage of Programs That Are Licensed	91	$86^{f,g}$	$89^{f,g}$	98	95	$100^{b,c}$	$99^{b,c}$
Average licensed capacity	$48^{c,f}$	53^{f}	$74^{f,g}$	56^{f}	60^{f}	$105^{a,b,c,d,e,g}$	$57^{c,f}$
Average Enrollment	50	58	73	58	63	91	67
Average Enrollment By Age (%)							
0 to 11 months	< 1	1	2	2	3	5	4
12 to 23 months	< 1	2	3	3	4	7	5
24 to 35 months	< 1	2	8	11	9	13	12
36 to 47 months	$17^{c,d,e}$	$14^{c,d,e,g}$	$25^{a,b}$	$28^{a,b,f,g}$	$25^{a,b}$	20^{d}	$22^{b,d}$
48 to 59 months	$65^{c,d,e,f,g}$	$59^{c,d,e,f,g}$	$40^{a,b,f,g}$	$36^{a,b,f,g}$	$34^{a,b,f,g}$	$20^{a,b,c,d,e}$	$27^{a,b,c,d,e}$
60 to 71 months	$17^{b,c,d,e,f,g}$	10^{a}	10^{a}	10^{a}	10^{a}	8^{a}	10^{a}
School age	1	$11^{c,d,e,f,g}$	13^{b}	9^{b}	15^{b}	28^{b}	19^{b}
Average Percentage of Children Who Are:							
White, non-Hispanic	$43^{c,e,f,g}$	$52^{a,c}$	$78^{a,b}$	55	73^{a}	79^{a}	79^{a}
Black, non-Hispanic	$37^{c,e,f,g}$	$34^{a,g}$	$14^{a,b,d}$	$27^{c,g}$	17^{a}	15^{a}	$15^{a,b,d}$
Hispanic	16	12	3	12	6	3	4
Other	3	2	3	4	3	2	2
Average Percentage of Children Whose Parents Receive Public Assistance	68^{d}	n.a.	$5^{d,f}$	$30^{a,c,e}$	10^{d}	6^{c}	8
Average Percentage of Teachers with:							
Graduate degree	$10^{c,e,f}$	38	$8^{a,g}$	13	11^{a}	6^{a}	10^{c}
College degree	35	50^{f}	42	39	38	25^{b}	25
Associates degree	18^{b}	$6^{a,f,g}$	11	19	13	11^{b}	12^{b}
CDA	$29^{c,e,f,g}$	$1^{c,e,f,g}$	$8^{a,b,f}$	10^{f}	$10^{a,b,f}$	$12^{a,b,c,d,e,g}$	$12^{a,b,f}$
Some college	$7^{c,f,g}$	$4^{c,f,g}$	$16^{a,b,f}$	13^{f}	16^{f}	$23^{a,b,c,d,e,g}$	$18^{a,b,f}$
High school diploma	1	2	14	6	12	21	21

TABLE A.4 (continued)

	(A) Head Start	(B) Public School-Based Nonprofit	(C) Religious-Sponsored Nonprofit	(D) Other Sponsored Nonprofit	(E) Independent Nonprofit	(F) For-Profit Chain	(G) Independent For-Profit
Less than high school	0	0^{f}	0	1	1	1^{b}	1
Average Hourly Wage of Teachers	$9.67	$14.40	$8.10	$8.46	$7.40	$5.43	$6.30
Average Rate of Annual Teacher Turnover (%)	20^{f}	14^{f}	23^{f}	26	25	39^{a,b,c}	27
Average Group Size By Age of Youngest Child							
0 to 11 months	n.a.	11	9	11	8	8	8
12 to 23 months	n.a.	11	10	11	11	11	10
24 to 35 months	n.a.	17	13	18	14	14	13
36 to 47 months	19	16	16	20^{g}	16	18	15^{d}
48 to 59 months	17	17	16	17	17	19^{g}	15^{f}
60 or more months	17	27	19	14	17	19	16
Average Child-Staff Ratio By Age of Youngest Child							
0 to 11 months	n.a.	5.0	4.2	4.1	3.9	4.6	4.4
12 to 23 months	n.a.	7.7	5.5	5.1	5.5	6.7	6.1
24 to 35 months	n.a.	6.9	7.1	7.5	7.2	8.0	7.6
36 to 47 months	8.4^{f}	7.4^{f}	8.7^{f}	8.8^{f}	8.4^{f}	11.0^{a,b,c,d,e,g}	9.0^{f}
48 to 59 months	8.7^{f}	9.0^{f}	9.6^{f}	8.7^{f}	9.8	11.8^{a,b,c,d}	10.0
60 or more months	8.7	12.5	10.5	8.8^{f}	8.8^{f}	13.8^{d,e}	11.0
Percentage of Programs That Provide:							
Physical exams	71^{b,c,d,e,f,g}	31^{a,c,d,e,f,g}	44^{a,b,d}	18^{a,b,c,g}	7^{a,b}	4^{a,b}	2^{a,b,d}
Dental exams	81^{b,c,d,e,f,g}	32^{a,c,d,e,f,g}	5^{a,b}	17^{a,b,g}	9^{a,b}	3^{a,b}	4^{a,b,d}
Hearing, speech, vision testing	99^{c,d,e,f,g}	85^{c,d,e,f,g}	50^{a,b}	56^{a,b}	51^{a,b}	52^{a,b}	40^{a,b}
Psychological testing	89^{b,c,d,e,f,g}	60^{a,c,d,e,f,g}	13^{a,b}	28^{a,b,e,f,g}	13^{a,b,d}	8^{a,b,d}	8^{a,b,d}
Cognitive development testing	97^{c,d,e,f,g}	77^{c,d,e,f,g}	36^{a,b}	51^{a,b}	36^{a,b}	31^{a,b}	29^{a,b,d}
Social development testing	95^{c,d,e,f,g}	75^{c,d,e,f,g}	33^{a,b}	51^{a,b,g}	34^{a,b}	29^{a,b}	28^{a,b,d}

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TABLE A.4 (continued)

	(A) Head Start	(B) Public School-Based Nonprofit	(C) Religious-Sponsored Nonprofit	(D) Other Sponsored Nonprofit	(E) Independent Nonprofit	(F) For-Profit Chain	(G) Independent For-Profit
Average Hourly Fee (Excluding 0's)							
All ages	$0.86	$1.19	$1.65	$1.39	$1.73	$1.47	$1.53
0 to 11 months	—	$1.53	$1.39	$1.63	$1.29	$1.52	$1.21
12 to 23 months	—	$1.80	$1.52	$1.89	$1.49	$1.49	$1.32
24 to 35 months	—	$1.73	$1.73	$1.82	$1.82	$1.34	$1.48
36 to 47 months	$0.00	$1.96	$1.96	$1.92	$1.93	$1.48	$1.74
48 to 59 months	—	$1.59	$1.85	$1.80	$1.96	$1.51	$1.80
60 to 71 months	$1.16	$1.50	$1.64	$1.25	$1.80	$1.65	$1.65
School-age	—	$1.67	$1.63	$1.51	$1.43	$1.61	$1.79
Average Percentage of Budget Met With:							
Parent fees	$2^{b,c,d,e,f,g}$	$17^{a,c,d,e,f,g}$	$89^{a,b,d}$	$52^{a,b,c,e,f,g}$	$81^{a,b,d,f,g}$	$95^{a,b,d,e}$	$92^{a,b,d}$
Government funds	$95^{b,c,d,e,f,g}$	$78^{a,c,d,e,f,g}$	$3^{a,b,d,e}$	$38^{a,b,c,e,f,g}$	$11^{a,b,c,d}$	$3^{a,b,d}$	$8^{a,b,d}$
Percentage of Programs Receiving In-Kind Donations	$81^{b,c,d,e,f,g}$	25^{a}	$40^{a,f,g}$	$47^{a,f,g}$	$35^{a,f,g}$	$5^{a,c,d,e}$	$13^{a,c,d,e}$
Average Percent of Budget Spent On Salaries and Benefits	$65^{f,g}$	$71^{f,g}$	$71^{f,g}$	$63^{f,g}$	$66^{f,g}$	$47^{a,b,c,d,e}$	$53^{a,b,c,d,e}$
Sample Size	231	255	240	131	402	94	459

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

NOTE: Numbers in parentheses are standard errors.

[a] Significantly different from Head Start programs at the 95 percent confidence level.

[b] Significantly different from public school-based programs at the 95 percent confidence level.

[c] Significantly different from religious-sponsored nonprofit programs at the 95 percent confidence level.

[d] Significantly different from other sponsored nonprofit programs at the 95 percent confidence level.

[e] Significantly different from independent nonprofit programs at the 95 percent confidence level.

[f] Significantly different from the for-profit chain programs at the 95 percent confidence level.

[g] Significantly different from the independent for-profit programs at the 95 percent confidence level.

TABLE A.5

CORRELATION COEFFICIENTS RELATING INDICATORS OF QUALITY IN CENTERS

	Average Group Size						Average Child-Staff Ratio								
	0-11	12-23	24-35	36-47	48-59	60 +	0-11	12-23	24-35	36-47	48-59	60 +	Total Enrollment	Teacher Turnover	Percentage of Teachers With CDA +
Average Group Size In Groups In Which the Youngest Child is:															
0 to 11 months	1.00														
12 to 23 months	0.53	1.00													
24 to 35 months	0.38	0.58	1.00												
36 to 47 months	0.26	0.48	0.54	1.00											
48 to 59 months	0.27	0.34	0.43	0.64	1.00										
60 months or older	0.30	0.24	0.26	0.42	0.38	1.00									
Average Child-Staff Ratio In Groups In Which the Youngest Child is:															
0 to 11 months	0.46	0.19	0.03	0.07	0.12	0.11	1.00								
12 to 23 months	0.26	0.47	0.18	0.16	0.11	0.20	0.50	1.00							
24 to 35 months	0.01	0.17	0.42	0.19	0.14	0.10	0.14	0.38	1.00						
36 to 47 months	0.01	0.06	0.13	0.37	0.27	0.15	0.27	0.38	0.38	1.00					
48 to 59 months	0.02	-0.06	0.07	0.16	0.44	0.15	0.24	0.15	0.34	0.84	1.00				
60 months or older	0.09	0.12	0.06	0.17	0.15	0.53	0.25	0.30	0.18	0.34	0.36	1.00			
Total Enrollment	0.43	0.38	0.27	0.31	0.36	0.40	0.20	0.24	0.13	0.22	0.23	0.32	1.00		
Teacher Turnover	-0.06	0.03	0.04	0.00	-0.01	0.01	-0.07	0.08	0.02	0.10	0.02	0.10	0.01	1.00	
Percentage of Teachers With a CDA or Higher Education	0.21	0.11	0.16	0.07	0.03	0.02	-0.02	-0.08	-0.06	-0.18	-0.18	-0.15	-0.01	-0.06	1.00

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990).

APPENDIX B

SUMMARY OF NATIONAL STUDIES OF EARLY EDUCATION AND CARE PROGRAMS

TABLE B.1

COMPARISON OF KEY FEATURES OF FOUR NATIONAL STUDIES OF CENTER-BASED EARLY EDUCATION AND CARE PROGRAMS

Feature	Day Care Survey--1970 (Westat)	National Day Care Study--1976-77 (Abt Associates)	Study of Child Care Food Program--1976 (Abt Associates)	Profile of Child Care Settings--1989-90 (Mathematica)
Sample Frame	(1) Centers with at least one full-day paid child (7 or more hours per day, 2 days per week) on lists obtained from licensing authorities, telephone directories, church organizations, community action agencies, welfare and social service departments, and other known sources of lists. (2) Public school districts with more than 300 students enrolled.	Centers that provide non-live-in day care; are open at least 25 hours per week; serve at least 13 children; are open at least nine months per year; and serve mainly nonhandicapped children (less than 50 percent handicapped), on lists obtained from state licensing authorities and augmented with unlicensed centers. Included Head-Start and school-operated programs.	Day care centers in the 48 contiguous United States that participate in the Child Care Food Program (CCFP).	(1) All licensed centers plus unlicensed church-based programs and part-day nursery schools on lists obtained from licensing authorities, telephone directories, church organizations, resource and referral organizations, and other sources of lists. Included Head Start programs. (2) Public school-based early childhood programs on lists obtained from state department of education or school districts.
Sample Design	Area probability sample from 48 states plus District of Columbia; stratified into 52 strata defined by region, urbanization, type of industry, and other characteristics; PSU's mostly counties; one PSU selected from each stratum with probability proportional to 1960 population; all centers in each PSU included in sample.	National list stratified by state; size of sample drawn from each stratum proportional to state's population of centers. Supplementary sample drawn from states with few centers. Covers 50 states plus District of Columbia.	Stratified, two-phase, multi-stage cluster sample; stratified sample of 20 states selected. CCFP sponsors sampled from 20 states and providers sampled from selected sponsors.	Area probability sample drawn from 50 states plus District of Columbia; counties stratified by region, urbanization, and income and sampled with probability proportional to 1984 population of children under 5 years old; sample of centers drawn from each county proportional to county's population of centers
Sample Size	289 centers, 1,277 school districts	3,167 centers	263 centers	2,089 centers
Mode of Data Collection	Centers--in-person interviews; Districts--mail interviews	Computer-Assisted Telephone Interviews	In-person interviews	Computer-Assisted Telephone Interviews

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TABLE B.2

COMPARISON OF KEY FEATURES OF FOUR NATIONAL STUDIES OF FAMILY DAY CARE PROVIDERS

Feature	Day Care Survey--1970 (Westat)	National Day Care Study--1976-77 (Abt Associates)	Study of Child Care Food Program--1986 (Abt Associates)	Profile of Child Care Settings--1989-90 (Mathematica)
Sample Frame	All family day care providers identified through screening of households who care for no more than 6 children, 7 or more hours per day, 2 days per week for pay.	Family day care in large urban areas, including regulated, unregulated, and sponsored homes.	Family day care providers who participate in the Child Care Food Program (CCFP).	Family day care homes and group homes regulated by state or local authorities.
Sample Design	Area probability sample from 48 states plus the District of Columbia; stratified into 52 strata by region, urbanization, type of industry, and other characteristics; PSU's mostly counties; one PSU from each stratum selected with probability proportional to 1960 population; sample of enumeration districts selected after stratification by poverty and urbanization; sample of blocks selected for household screening; all family day care providers in households screened included in sample.	Three sites (Los Angeles, Philadelphia, and San Antonio) selected according to geographic diversity; socioeconomic diversity; cultural diversity; diversity in regulatory approach; large total amount of family day care; adequate numbers of regulated, unregulated, and sponsored homes; large population of parents eligible for day care subsidies; and community acceptance of study. Sample of regulated and sponsored providers selected from lists; unregulated providers sampled through household screening.	Stratified, two-phase, multi-state cluster sample; stratified sample of 20 states selected; CCFP sponsors sampled from 20 states, and providers sampled from selected sponsors.	Area probability sample from 50 states plus the District of Columbia; counties stratified by region, urbanization, and income and sampled with probability proportional to 1984 population under age 5; sample of regulated family providers and group homes drawn from each county proportional to county's population of family providers and group homes
Sample Size	134 family day care providers	793 family day care providers	417 family day care providers	583 family day care providers and group homes
Mode of Data Collection	In-person interviews	In-person interviews	In-person interviews	Computer-Assisted Telephone Interviews

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A PROFILE OF CHILD CARE SETTINGS: EARLY EDUCATION AND CARE IN 1990

VOLUME II

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APPENDIX A

SAMPLE DESIGN, WEIGHTS, AND SAMPLING ERRORS

by

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OVERVIEW OF THE TELEPHONE SURVEY SAMPLE DESIGN

The sample of early education and care providers interviewed in the telephone survey is a nationally-representative sample drawn from the universe of formal early education and care programs. The sample was selected in two stages. In the first stage, we selected a sample of counties that are representative of counties in the United States. Counties were stratified according to region, metropolitan status, and poverty level, and sample counties were selected with probability proportional to the size of the population under age 5.

In the second stage of the sampling, we selected a stratified random sample of early education and care providers from the counties selected in the first stage. In order to draw the provider sample, we assembled a sample frame list of eligible providers; stratified providers according to whether they were regulated home-based programs, Head Start programs, public-school-based programs, or other center-based programs; and drew random samples of programs from each stratum. We interviewed a total sample of 2,672 programs, 583 of which are regulated home-based programs and 2,089 of which are center-based programs.

In the following sections we describe the sampling plan for the telephone survey in more detail. The next section describes the universe from which the sample was drawn. The following sections present detailed descriptions of the selection of counties, the sample frame assembled, the selection of early education and care providers within the selected counties, the calculation of sample weights, and the calculation of design effects for estimating sampling errors.

THE UNIVERSE OF FORMAL EARLY EDUCATION AND CARE PROGRAMS

The sample frame for the Profile of Child Care Settings (PCS) surveys is composed of the following types of providers:

- o All child care centers and early education programs that are licensed by state or county child care licensing organizations,

- Unlicensed church-based programs and part-day preschool programs located in states where those programs are not required to be licensed,
- Public-school-based early education programs that are not licensed by state child care licensing agencies, and
- Regulated home-based child care providers, including home-based group day care providers where they are defined and regulated as a separate category of provider.

The basic sample frame consists of the child care centers, early education programs, and home-based child care providers that are licensed or registered by the state or county in which they are located. Because the coverage of licensing regulations varies among states, this basic sample frame was augmented with church-based programs, part-day preschool programs, and other formal programs that are exempt from licensing in some states. The basic sample frame was also expanded to include public-school-based programs, which rarely fall under the jurisdiction of child care licensing and are usually regulated by state education departments. Two types of programs--unlicensed programs that serve only school-age children and unlicensed programs that serve children exclusively on a drop-in basis--were specifically excluded from the sample frame because they do not provide *regular* care for *preschool* children and the lists were too difficult to obtain.

SELECTION OF COUNTIES (PRIMARY SAMPLING UNITS)

In the following subsections we describe the selection of the counties for the Profile of Child Care Settings study. In sampling terminology, the sampled counties are called primary sampling units (PSUs).

Sampling Fraction

One of the goals of the sample selection was to have approximately equal overall chances of selection in each stratum. For this purpose, a minimum PSU size had to be set and it was necessary to estimate the overall sampling fraction. Based on the estimated number of eligible early childhood programs in the United States, the overall sampling fraction was estimated to be 1 in 48 (which means that for every 48 providers eligible for the study, 1 was to be chosen for the sample). If the probability of selecting the ith PSU is written as $P(A_i)$ and the probability of selecting the jth provider within the ith PSU is written as $P(B_{ij})$, then the overall probability of selection takes the following form:

$$P = P(A_i) * P(B_{ij}) = 1/48$$

Thus, the sample was drawn so that neither the PSU component nor the provider component of the overall probability of selection could be less than 1/48, and small counties had to be grouped into larger clusters to bring their collective PSU selection probability up to 1 in 48.

The selection eliminated very small counties (population under 5000) from the study. Although eliminating these counties from the sample creates a very small bias, the efficiency of sampling and survey operations were considerably improved by doing so.

Stratification

After the smallest counties were eliminated, 2,863 counties with a total 1986 population of 240,213,400 remained. These counties were divided into self-representing and non-self-representing units.

The sample consists of 100 PSUs. Each PSU theoretically represents 1 percent of the population under age 5 (counting the 5 boroughs of New York City as one county). The largest 20 counties were selected with certainty ($P(A_i) = 1.0$). These PSUs are listed in Table A.1. Selecting this part of the sample in one stage reduces the clustering effects in the total sample, in turn reducing standard errors and improving the precision of the sample estimates.

The remaining counties and county clusters were divided into 40 non-self-representing strata, and the selection included two PSUs from each of these non-self-representing strata. PSUs within each geographical region (North Central, South, Northeast and West) were further stratified into three categories based on metropolitan status. The first category includes counties with cities whose

TABLE A.1

PSUs SELECTED WITH CERTAINTY

Region	PSU #	County
West	00	Maricopa, Arizona
	01	Alameda, California
	02	Los Angeles, California
	03	Orange, California
	04	San Diego, California
	05	Santa Clara, California
	06	King, Washington
South	07	Dade, Florida
	08	Bexar, Texas
	09	Dallas, Texas
	10	Harris, Texas
North Central	11	Cook, Illinois
	12	Cuyahoga, Ohio
	13	Wayne, Michigan
Northeast	14	Middlesex, Massachusetts
	15	Nassau, New York
	16	New York, New York[a]
	17	Suffolk, New York
	18	Allegheny, Pennsylvania
	19	Philadelphia, Pennsylvania

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990)

[a] Includes the five boroughs of New York City: Bronx, Kings, New York, Queens, and Richmond.

population is at least 100,000, so this is the most urban category. The second category includes all remaining metropolitan counties. The third category includes all nonmetropolitan counties. Cross-classifying the four regions by the three metropolitan status categories created the 12 groups of strata that were the basis of the sampling plan. Within these 12 groups the PSUs were further stratified according to the percentage of persons below the poverty level (Table A.2). The data for this stratification were taken from Census Bureau estimates of the percentage of persons below the poverty level in 1979.

Sample Selection Methods

Rather than making sample selections proportional to the 1986 total population, the measure of size (MOS) used was the estimated population under 5 years old in 1986. This was calculated as the product of the Census Bureau estimate of the total population in 1986 and the percentage of the 1984 population under age 5.

The overall MOS was 13,345,265, making the average stratum size 13,345,265/40 or 333,632. The average stratum size was then used as the basis for dividing the 12 groups of strata into strata roughly equal in size as shown in Table A.3. Because data for the proportion of the population under age 5 for counties with an approximate total 1986 population of less than 20,000 were missing from the Census Bureau estimates, this figure was imputed for counties with missing estimates.

As mentioned previously, small counties were combined to create clusters with selection probabilities of 1 in 48 or greater. Two PSU's were selected per stratum. Then, the probability of selecting a non-self-representing PSU is:

$$P(A_i) = 2*MOS(a_{hi})/SUM_h$$

where $MOS(a_{hi})$ is the estimated population under age 5 for the ith county in the hth stratum, and $SUM_h = \Sigma_i MOS(a_{hi})$.

TABLE A.2

STRATIFICATION BY PERCENTAGE OF PERSONS BELOW THE POVERTY LEVEL

Region	Type of PSU	Stratum	Poverty Range (%)
North Central	Central City	1	11.1 - 21.8
		2	9.4 - 11.0
		3	4.6 - 9.2
	Other Metropolitan	1	9.9 - 17.7
		2	8.1 - 9.8
		3	6.3 - 8.1
		4	4.9 - 6.2
		5	3.0 - 4.9
	Nonmetropolitan	1	11.6 - 44.7
		2	9.0 - 11.5
		3	5.9 - 8.9
South	Central City	1	19.6 - 33.1
		2(East)	13.4 - 19.4
		3(West)	13.4 - 19.4
		4(East)	6.4 - 13.2
		5(West)	6.4 - 13.2
	Other Metropolitan	1(East)	13.5 - 35.2
		2(West)	13.5 - 35.2
		3(East)	9.7 - 13.4
		4(West)	9.7 - 13.4
		5(East)	3.6 - 9.7
		6(West)	3.6 - 9.7
	Nonmetropolitan	1	23.6 - 52.9
		2	18.8 - 23.6
		3	15.2 - 18.8
		4	7.3 - 15.2
Northeast	Central City	1	9.6 - 19.1
		2	7.1 - 9.4

TABLE A.2 (Continued)

Region	Type of PSU	Stratum	Poverty Range (%)
	Other Metropolitan	1	9.9 - 16.7
		2	8.2 - 9.1
		3	6.4 - 8.0
		4	3.5 - 6.4
	Nonmetropolian	1	5.2 - 21.6
West	Central City	1	11.9 - 14.7
		2	10.3 - 11.5
		3	4.6 - 9.5
	Other Metropolitan	1	9.5 - 22.7
		2	4.1 - 9.4
	Nonmetropolitan	1	13.0 - 40.0
		2	0.0 - 13.0

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990)

NOTE: The table reads: In the North Central region, central city counties were divided into three strata. The first stratum includes central city counties in which the percentage of persons below the poverty level ranges from 11.1 to 21.8 percent.

TABLE A.3

POPULATION UNDER AGE 5 FOR COUNTIES BY REGION AND TYPE OF COUNTY

Region	Type of County	Population Under Age 5	Number of Strata
North Central	Central City	1,088,021	3
	Other Metropolitan	1,480,098	5
	Nonmetropolitan	942,283	3
	TOTAL	3,510,402	11
South	Central City	1,585,901	5
	Other Metropolitan	2,085,080	6
	Nonmetropolitan	1,386,933	4
	TOTAL	5,057,914	15
Northeast	Central City	724,126	2
	Other Metropolitan	1,314,897	4
	Nonmetropolitan	390,981	1
	TOTAL	2,430,004	7
West	Central City	1,148,926	3
	Other Metropolitan	668,252	2
	Nonmetropolitan	529,767	2
	TOTAL	2,346,945	7

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990)

Sample Selection Process

The actual selection was made first by arranging the counties within each stratum alphabetically by state, thereby conforming to the Census Bureau listing given in the 1988 County and City Data Book. Then a running cumulative MOS was calculated for each PSU, and using a random number table, the two PSUs whose cumulative MOS were the first to exceed the chosen random digits were selected.

In strata where most or all of the county MOS_i were greater than or equal to the minimum MOS for the stratum, individual counties were randomly selected. In strata where the county MOS_i tended to be less than the minimum MOS, the selection was made in three stages. First, a state within the stratum was selected using the random method described above. Next, counties whose MOS was less than the minimum MOS were combined into clusters based on geographic proximity. Finally, PSUs were randomly selected within the selected state. These steps saved the labor of creating county clusters in states not included in the sample in that stratum.

Table A.4 lists the selected PSUs.

SAMPLE FRAME OF FORMAL EARLY EDUCATION AND CARE PROGRAMS

Because the quality of national lists of licensed child care providers available from vendors was unknown and because lists of some providers would have to be obtained from state and county sources under any sampling strategy, the sample frame lists were assembled by contacting state and local agencies in the states and counties selected for participation in the study. In the following subsections we describe the sample frame acquisition process and the resulting sample frame.

Sample Frame Acquisition

Several aspects of the sample frame acquisition process are notable. First, all states and counties selected in the first stage of sampling cooperated in providing lists of licensed home-based and center-based early education and care programs. Child care licensing agencies in all states were accustomed

TABLE A.4

SELECTED PRIMARY SAMPLING UNITS BY REGION AND TYPE OF COUNTY

Region	Type of County	PSU #	Name of County	Stratum	$P(A_i)$
North Central	Central City	20	Marion, Indiana	1	.3438
		21	Hamilton, Ohio	1	.3693
		22	Genessee, Michigan	2	.1989
		23	Summit, Ohio	2	.2007
		24	Hennepin, Minnesota	3	.3760
		25	Lancaster, Nebraska	3	.0851
	Other Metropolitan	26	Stearns, Minnesota	4	.0681
		27	La Crosse, Wisconsin	4	.0450
		28	Rock Island, Illinois	5	.0857
		29	Madison, Indiana	5	.0589
		30	Midland, Michigan	6	.0410
		31	Auglaize, Ohio	6	.0259
		32	Grundy/Woodford, Illinois	7	.0343
		33	Oakland, Michigan	7	.4773
		34	Du Page, Illinois	8	.4301
		35	Hamilton, Indiana	8	.0496
	Nonmetropolitan	36	Bond/Clay/Coles/ Fayette, Illinois	9	.0344
		37	Burt/Butler/Colfax/ Cuming/Nemaha/Polk Richardson/Stanton/ Thurston/Wayne, Nebraska	9	.0307
		38	Macoupin/ Montgomery, Illinois	10	.0290
		39	Itasca/ Koochiching/ Pennington, Minnesota	10	.0259
		40	Knox/Stark, Illinois	11	.0210

TABLE A.4 (Continued)

Region	Type of County	PSU #	Name of County	Stratum	$P(A_i)$
		41	Columbia/Green Lake, Wisconsin	11	.0228
South	Central City	42	Fulton, Georgia	12	.2887
		43	Shelby, Tennessee	12	.3902
		44	Washington, DC	13	.2006
		45	Newport News, Virginia	13	.0809
		46	Mobile, Alabama	14	.1887
		47	Jefferson, Texas	14	.1326
		48	Broward, Florida	15	.3879
		49	Mecklenburg, North Carolina	15	.1984
		50	Oklahoma, Oklahoma	16	.3270
		51	Collin, Texas	16	.1211
	Other Metropolitan	52	Christian, Kentucky	17	.0268
		53	Berkeley, South Carolina	17	.0715
		54	Ouachita, Louisiana	18	.0744
		55	Bowie, Texas	18	.0361
		56	Palm Beach, Florida	19	.2398
		57	Alamance, North Carolina	19	.0325
		58	De Kalb, Georgia	20	.1834
		59	Anderson, South Carolina	20	.0595
		60	Frederick, Maryland	21	.0612
		61	Arlington, Virginia	21	.0374
		62	Clayton, Georgia	22	.0774
		63	Cleveland, Oklahoma	22	.0762

TABLE A.4 (Continued)

Region	Type of County	PSU #	Name of County	Stratum	$P(A_i)$
	Nonmetropolitan	64	Halifax/Hertford/ Northampton/ Warren, North Carolina	23	.0358
		65	Fayette/Hardeman/ Haywood/Lake/ Lauderdale, Tennessee	23	.0358
		66	Lowndes, Georgia	24	.0255
		67	Darlington, South Carolina	24	.0228
		68	Johnston, North Carolina	25	.0224
		69	Fayette/Logan/ Nicholas, West Virginia	25	.0415
		70	Cherokee/Lancaster/ Union, South Carolina	26	.0372
		71	Bedford/Coffee/ Marshall, Tennessee	26	.0267
North-East	Central City	72	Hampden, Massachusetts	27	.1732
		73	Erie, New York	27	.3596
		74	Fairfield, Connecticut	28	.2970
		75	Union, New Jersey	28	.1767
	Other Metropolitan	76	Bristol, Massachusetts	29	.2080
		77	Orange, New York	29	.1430
		78	Ocean, New Jersey	30	.1549
		79	Berks, Pennsylvania	30	.1266
		80	Plymouth, Massachusetts	31	.2078
		81	Westmoreland, Pennsylvania	31	.1507

TABLE A.4 (Continued)

Region	Type of County	PSU #	Name of County	Stratum	P(A_i)
		82	Cumberland, Pennsylvania	32	.0712
		83	Bristol, Rhode Island	32	.0182
	Nonmetropolitan	84	Franklin, Massachusetts	33	.0226
		85	Belknap/Carroll, New Hampshire	33	.0254
West	Central City	86	San Francisco, California	34	.1922
		87	Stanislaus, California	34	.1473
		88	Riverside, California	35	.3632
		89	El Paso, Colorado	35	.1388
		90	Ventura, California	36	.2757
		91	Honolulu, Hawaii	36	.3600
	Other Metropolitan	92	Dona Ana, New Mexico	37	.0735
		93	Whatcom, Washington	37	.0528
		94	Napa, California	38	.0410
		95	San Mateo, California	38	.2294
	Nonmetropolitan	96	Custer/Elmore/Gooding/Idaho/Lemhi, Idaho	39	.0311
		97	Grant/Hidalgo/Luna, New Mexico	39	.0272
		98	Clatsop/Columbia, Oregon	40	.0315
		99	Lincoln/Tillamook, Oregon	40	.0227

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990)

NOTE: The table reads: Marion, Indiana, which was selected from the first stratum of North Central central city counties, was selected with probability equal to .3438.

to responding to requests for lists of licensed center-based programs; some lists were even available in electronic form. State departments of education were less likely to have lists of public-school based programs, but were helpful in suggesting ways of assembling such lists.

Agencies responsible for licensing or registering family day care providers sometimes required special assurances that the lists they provided would be kept confidential, but in all except two cases, they released their lists of family day care and group home providers. In New Jersey, the county agencies responsible for registering family day care providers were unwilling to release their lists because, as a resource and referral agency, they competed with other private resource and referral agencies and did not want their list to get into their competitors' hands. They drew a random sample from their lists and provided contact information for the providers who were drawn into the sample. In California, there is a law prohibiting the state licensing agency from releasing lists of small family day care providers. However, the licensing agency staff drew a random sample of family day care providers from their lists and contacted them by mail to seek their participation in the PCS study. The small family day care providers who were willing to participate in the study provided information about how to reach them to conduct the interview.

Secondly, the complexity of the sample frame acquisition process reflected the fragmentation of child care administration that exists in many states. Lists of regulated child care providers often had to be obtained from several different state agencies. For example, in Arizona three agencies deal with child care: the Department of Health Services, which licenses centers; the Department of Education, which oversees public school programs; and the Department of Economic Security, which certifies family day care providers to receive subsidies for caring for low-income children. In some states, some parts of the regulation system are administered by county agencies. For example, in Ohio and New Jersey, county agencies are responsible for registering or licensing family day care providers.

Finally, a variety of procedures were followed for compiling lists of providers who are exempt from licensing. Our strategies for constructing these lists are described along with the resulting sample frame in the next subsection.

The Resulting Sample Frame

The objective of the sample frame acquisition process was to compile lists of early education and child care providers that were as complete and accurate as possible. Sample estimates may be biased if a sample frame is not complete (i.e., does not include all members of the population), or if the omitted members of the population differ systematically from those included in the sample frame. As noted above, we received 100 percent cooperation in obtaining lists of licensed providers (or making alternative arrangements for sampling). We were also successful in augmenting the lists of licensed providers with lists of other exempt providers, including:

- Public-School-Based Programs. Public-school-based programs are exempt from licensing in nearly all of the states in the sample. We constructed lists of public-school-based programs by obtaining lists from state departments of education or, when such lists were not available, by calling local education agencies and obtaining information about early childhood programs in their schools. Lists of public-school-based programs were successfully constructed for all counties in the sample.

- Private School Programs. Where private school programs are not required to be licensed, lists of private school programs were obtained from state departments of education or other agencies they referred us to, or they were assembled from lists produced by Market Data Retrieval from a variety of sources, a directory of private schools obtained from the Association of Christian Schools, and lists of Catholic school programs obtained by calling Catholic Archdioceses.

- Federal Programs. Federal programs are exempt from state licensing in most states. We were able to obtain lists of programs on military bases from the Pentagon and lists of child care centers in GSA-controlled space from GSA.

- Montessori Programs. In a couple of states in the sample, Montessori programs are not required to be licensed. For these states, we obtained directories of Montessori programs from the American Montessori Association.

- Head Start Programs. Although in most states Head Start programs are not specifically exempt from licensing, they are sometimes exempt because they are sponsored by public schools, operate less than 4 hours per day, or are considered federal programs. Therefore, we compiled lists of Head Start programs for each county by calling Head Start grantees in each county to obtain information about individual Head Start programs.

- Religious-Sponsored Programs. In all of the nine states in the sample where some or all religious-sponsored programs are exempt from licensing, lists of religious-sponsored programs were obtained from licensing agencies or health agencies that register these programs or maintain lists of exempt programs.

- Part-Day Programs. In eleven of the states in the sample, part-day programs (defined according to differing hours of care per week) are exempt from licensing. In five of these states (Alabama, Indiana, Oregon, South Carolina, and Virginia), our contacts in the licensing agencies reported that all such programs were in fact licensed, were registered as exempt and on lists, or were mainly school-based programs. In the remaining six states (Kentucky, Louisiana, Maryland, North Carolina, Rhode Island, and West Virginia), we were unable to determine the extent to which part-day programs are voluntarily licensed, and we were unable to obtain or compile lists of exempt part-day programs. We explored the possibility of compiling lists with the help of resource and referral agencies in the sample counties, but we found that lists of part-day programs were not available.

- School-Age Child Care Programs. Because school-age child care is not of primary interest in this study, we made no efforts to get lists of school-age programs that are not licensed.

- Occasional Drop-In Care Programs. Drop-in care is also not a central interest in this study, and it was decided not to make special efforts to include these exempt programs in the sample.

To the best of our knowledge, the final sample frame is quite complete, except for the missing exempt part-day programs in up to eleven states. Despite our efforts to obtain lists of exempt part-day programs, it is likely that a small number of part-day programs were not included in the sample frame. Approximately 7.6 percent of centers in states that exempt part-day programs compared with 10.6 percent of centers in other states reported operating for 4 hours per day or less, the most common threshold for exemption. Thus, the estimates of the total number of centers and the total number of children enrolled in centers may be slightly underestimated.

With respect to the accuracy of the final sample frame list, an examination of the final dispositions of sampled cases shows that the list of Head Start programs was the most accurate, while the list of family day care and group home providers was the least accurate. As shown in Table A.5, 11 percent of the Head Start programs on the list were ineligible (out of business, not in the sample county, or duplicate entries), while 17 percent of public-school-based programs and other center-

TABLE A.5

SAMPLE ELIGIBILITY

	Centers	Head Start	Public Schools	All Center Programs	Home-Based Programs
Total Cases Attempted	2,041	244	529	2,814	955
Total Ineligible Cases	339	27	92	458	286
Not providing care	235	12	76	323	263
Not in sample county	4	1	0	5	2
Duplicate	100	14	16	130	21
Total Eligible Cases	1,702	217	437	2,356	669
Completed interviews	1,459	213	417	2,089	583
Refusals	232	4	20	256	39
Could not locate	10	0	0	10	37
Language barrier	1	0	0	1	10
Percentage of Cases Not Eligible for the Survey	16.6	11.1	17.4	16.3	29.9
Not providing care	11.5	4.9	14.4	11.5	27.5
Not in sample county	0.2	0.4	0.0	0.2	0.2
Duplicate	4.9	5.8	3.0	4.6	2.2
Percentage of Eligible Cases:					
Completed	85.7	98.2	95.4	88.7	87.1
Refused	13.6	1.8	4.6	10.9	5.8
Not located	0.6	0.0	0.0	0.4	5.5
Language barrier	0.1	0.0	0.0	0.0	1.5

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, Inc., 1990) based programs and 30 percent of the home-based providers on the sample frame list were ineligible for the survey.

The final sample frame list contained 52,257 family day care and group home providers, 20,529 center-based programs other than Head Start or public-school-based programs, 1,772 Head Start programs, and 3,123 public-school-based programs.

SELECTION OF PROVIDERS WITHIN PSUs

In this section we describe the selection of the sample of early education and care programs within the PSUs. The sample of programs was stratified to ensure the representation of key types of programs. The stratification of early education and care programs within PSUs was also driven by the need to obtain minimum sample sizes for certain subgroups within the constraints of an overall sample size of approximately 2,600 programs. The subgroups for which it was important to produce sample estimates are regulated home-based programs, Head Start programs, public-school-based programs, and other center-based programs. Therefore, the sample was stratified according to type of program, and random samples of providers were selected within each stratum.

This sample allocation required the sampling of programs from each stratum at different rates. However, within each stratum, the sampling strategy was:

- To make sampling rates as nearly equal as was practical
- To minimize variation among the non-self-representing PSUs in the number of programs selected per PSU.[1]

To set sampling rates, the numbers of early education and care programs (N_{ti}) of each type t in each PSU were estimated. Then the within-PSU sampling rates for each program type--$P(B_{ijt})$--were established.

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[1] The programs selected in the self-representing PSUs are not subject to a clustering effect; in the remaining PSUs for which there is a clustering effect, variation within strata of the number of programs per PSU will increase sampling error.

From the earlier discussion of selection of PSUs, recall that the overall probability of selection is the product of the probabilities for each stage:

$$P = P(A_i) * P(B_{ij}).$$

Similarly, the overall probability of selection for each type of program (P_t) is:

$$P_t = P(A_i) * P(B_{ijt}).$$

To keep the values of P_t equal, the within-PSU probability was set as:

$$P(B_{ijt}) = P_t/P(A_i)$$

Since we did not have an overall estimate of the population, P_t had to be estimated. First, we established a preliminary overall probability of selection for each type of program (P_t'):

$$P_t' = n_t/\Sigma N_{ti},$$

where n_t is the desired number of selections overall and ΣN_{ti} is the total number of programs of type t summed over all of the PSUs. Next, we defined a preliminary within-PSU probability of selection. However, some PSUs contained too few programs to allow equal probability selection, so in these PSUs, where P_t' is greater than or equal to $P(A_i)$, all programs in the PSU were selected:

$$P(B_{ijt})' = P_t'/P(A_i) \text{ if } P_t' < P(A_i)$$
$$P(B_{ijt})' = 1.0 \text{ if } P_t' \geq P(A_i)$$

Then, the estimated number of selections of programs of type t in the ith PSU (n_{ti}') is:

$$n_{ti}' = P(B_{ijt})' * N_{ti},$$

and:

$$n_t' = \sum n_{ti}'.$$

Because n_t' did not equal the desired number of selections (n_t), the second stage probability was adjusted as follows:

$$P(B_{ijt}) = 1.0 \text{ if } P(B_{ijt})' = 1.0$$

$$P(B_{ijt}) = P(B_{ijt})' * ((n_t - n_{tk})/n_t') \text{ if } P(B_{ijt})' < 1.0,$$

where n_{tk} is the number of programs selected in PSUs where $P(B_{ijt})' = 1.0$.

Table A.5 summarizes the final allocation of the sample among the strata described above.

SAMPLE WEIGHTS

Sample weights adjust the distribution of the sample to that found in the population. In the survey of early education and care providers, the distribution of the sample was not proportional to that of the population of providers because:

- The probabilities of selection varied both within[2] and across types of providers,
- Rates of eligibility varied across types of providers and strata, and between PSUs within strata, and
- Response rates varied across types of providers and strata, and between PSUs within strata.

If sample weights did not correct the disproportionality introduced by these three factors, some groups would be overrepresented in the sample, and others would be underrepresented. Because these groups may differ from each other in ways that are important to the study, this over- and underrepresentation could lead to biased[3] estimates being made from the survey data. For example, if center-based programs in the Northeast were underrepresented and those in the South were overrepresented, the overall estimate of the percentage of center-based programs that are part of national chains would be biased upward.

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[2] While the design called for equal probability of selection within provider type, the actual probabilities were only approximately equal. The differences were small and if the probabilities of selection were the only source of disproportionality, sample weights may not have been needed.

Separate sets of sample weights were computed for each of the four types of providers: Head Start programs, public-school-based programs, other center-based programs, and regulated home-based providers. Since the sample was selected in two stages, and since probabilities varied among PSUs, weights were calculated on a PSU-by-PSU basis. Before computing the weights, some PSUs were combined because in a few PSUs there were no survey responses or no population for one or more of the groups of providers.

The sample weights have three components corresponding to the sources of disproportionality discussed above. The first component of the weights corrects for differing probabilities of selection, the second adjusts for differences in eligibility rates, and the third adjusts for differences in response rates. The first component of each program's sample weight is the inverse of its cumulative probability of selection (the product of the probabilities of selection at the first and second stages). Those with lower probabilities of selection are underrepresented in the sample and are weighted up, while those with higher probabilities of selection are overrepresented in the sample and are weighted down.

The second component of the each program's sample weight adjusts for differing eligibility rates, defined as the ratio of the number of eligible programs in the PSU to the total number of programs for which eligibility was determined. The eligibility rate adjustment is lower in PSUs with lower eligibility rates, reflecting the estimate that the population there is smaller than was initially assumed.

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[3] The sample weights eliminate or at least reduce the bias that would result from the over- and underrepresentation discussed in the text. Sample weights cannot completely eliminate nonresponse bias because even among the groups used for weighting, nonresponders may differ from those responding. Furthermore, adjustments for rates of eligibility are imprecise because they are based on sample data.

Finally, the third component of each program's sample weight is the inverse of the gross response rate, defined as the number of completed interviews divided by the number of interviews attempted. This adjustment ensures that the responses in each PSU are weighted up to the eligible sample in the PSU. If the adjustment were not made, PSUs with high levels of nonresponse would be underrepresented compared to those with lower levels of nonresponse.

The net effect of these components of the weights is to adjust the sample total in each PSU (or group of PSUs) to the population total for that PSU.

DESIGN EFFECTS[4] DUE TO DEPARTURES FROM SIMPLE RANDOM SAMPLING

Standard formulas for computing sampling errors (such as those typically used in statistical software packages) are based on the assumption that the data being analyzed are obtained from a simple random sample. A simple random sample has three characteristics pertinent to sampling errors. First, it is an element sample, which means that the units being analyzed are sampled directly rather than as part of larger units. Secondly, every element in the sample has an equal chance of being selected. In other words, it is an equal probability or self-weighting sample. Finally, a simple random sample is not stratified. The sampling error for a sample which does not have these characteristics will usually be quite different than the sampling error that would result from a simple random sample of the same size.

The sample drawn for the PCS study is a complex sample that differs from a simple random sample according to each of these three characteristics. The PCS sample is not an element sample because the sample was selected in stages; PSUs were selected in the first stage and programs were selected within PSUs[5] in the second stage. This multi-stage selection results in a clustering effect, which arises because elements within a cluster (PSU) tend to resemble each other more than they resemble the general population. The greater the homogeneity of programs within PSUs, the greater the design effect of clustering.[6]

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[4] A design effect is the increase or decrease in sampling error that results from using a sample design other than a simple random sample. Mathematically, it is the ratio of the estimate of the sample variance for the design used to the estimated sample variance of a simple random sample of the same size.

The PCS sample is also not an equal probability or self-weighting sample, for reasons discussed in the last section. The use of sample weights, like clustering, tends to increase sampling error, although this is not uniformly the case. In some instances the weights are positively correlated with study variables, in which case the weighted variance will be smaller than the unweighted variance.[7]

Finally, the PCS sample is stratified. Stratification, to the extent that the variance within strata is small relative to the population variance, will result in smaller sampling error.

In estimating design effects for the PCS sample, sample variances were computed for a selected set of representative variables. Design effects were computed by comparing these variances to estimates of the variance in a simple random sample of the same size. Because the sample in the self-representing PSUs were in essence sampled directly, they are not subject to a clustering effect; thus, the design effect calculations in the self-representing PSUs accounted only for the effects of

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[5] Because the self-representing PSUs were selected with certainty (that is, with a probability equal to 1), the programs in those PSUs were in essence sampled directly. As discussed later in this section, in computing sampling errors, this part of the sample was treated as an element sample.

[6] The design effect of clustering, $DEFF_c$ is a function of the degree of homogeneity within clusters, ROH, and the number of observations per cluster, b_c. If VARCLUSTER is the clustered variance and VARSRS is the estimated variance for a simple random sample of the same size, then:

$$DEFF_c=(VARCLUSTER/VARSRS)=1+ROH(b_c-1)$$

[7] If VARWEIGHT is the weighted variance, then the design effect of weighting, $DEFF_w$, is defined as:

$$DEFF_w=(VARWEIGHT/VARSRS)$$

Where there are design effects due to both clustering and weighting, the combined design effect is:

$$DEFF = DEFF_c * DEFF_w$$

weighting. For these PSUs, design effects were calculated for each selected variable as the weighted variance[8] divided by the estimate of the simple random sample variance.[9] The design effects for several variables were then averaged to create a more stable estimate of the effect of weighting in the self-representing PSUs.

For the remainder of the sample, the calculations estimated the effects of both weighting and clustering. Weighted and unweighted estimates of the clustered variance[10] and weighted and

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[8] For each variable, y, y_i is the unweighted value of y for the ith case, w_i is the sample weight for the ith case, and $u_i=y_i*w_i$. Then, the weighted variance of the mean, y^*, is estimated as:

$$\mathrm{VARWEIGHT}(y_w^*) = [1/w^2] * [v(u)+y_w^{*2}v(w)-2y_w^*c(u,w)]$$

where

$$\begin{aligned} v(u) &= [n\Sigma(u_i-u^*)^2]/(n-1) \\ v(w) &= [n\Sigma(w_i-w^*)^2]/(n-1) \\ c(u,w) &= [n\Sigma(u_i-u^*)(w_i-w^*)]/(n-1) \end{aligned}$$

n is the unweighted sample size, w is the sum of the W_i, and y^*, u^*, and w^* are the mean values of y, u, and w, respectively.

[9] In the case of proportions (p), we used the formula:

$$\mathrm{VARSRS} = [p(1-p)] / (n-1)$$

where n is the unweighted sample size. For means, we used the formula:

$$\mathrm{VARSRS} = [\Sigma w_i(y_i-y_w^*)^2] / [n\Sigma w_i]$$

where the terms are the same as those defined in the previous footnote.

[10] Because the design included two selections (PSUs) per stratus, we used the paired selections formula for computing the variance. If y_j and x_j are the sums of the variable y and the number of cases, weighted or unweighted as appropriate, for the jth pair of PSUs, and if y and x are the sums of y_j and x_j over all PSUs and r equals y/x, then:

$$\mathrm{VAR}(r) = (1/x) * \Sigma Dz^2,$$

where

$$Dz_j = (y_{j1}-rx_{j1}) - (y_{j2}-rx_{j2})$$

To separate the effects of clustering and weighting, separate computations were done with weighted and unweighted data. The ratio of the weighted variance to the unweighted variances is then the design effect due to weighting for the non-self-representing PSUs.

unweighted estimates of the overall design effect were computed for each variable. Then an average value of ROH (see earlier footnote) and an average value of the weighting effect were computed. These were combined with the weighting effects from the self-representing PSUs to create average overall design effects for the groups and subgroups of various sizes.

APPENDIX B

CONTEXTUAL VARIABLES

by

April Brayfield
Sandra Hofferth

THEORETICAL MOTIVATION

Contextual factors, including geographic factors, social and demographic factors, and economic factors, affect both the need for early education and care and the supply of formal early education and care programs. Thus, contextual variables were assembled and summary variables were produced for the analysis. The following sections describe the data and the contextual variables that were constructed for the analysis.

DATA AND VARIABLES

Data were obtained for 62 contextual variables in each of the 144 counties represented in the Profile of Child Care Settings sample. The final fifteen variables that are used to construct contextual scales come from five sources: (1) the National Center for Health Statistics Area Resource File, 1986; (2) the Bureau of Economic Analysis, 1987; (3) the County and City Data Book, 1988; (4) the DEMO-DETAIL 1986 Population Estimates; and (5) the National Council of Churches, 1980. Table B.1 lists the variables and definitions by data source. Table B.2 presents means and standard deviations for the county-level variables.

FACTOR ANALYSIS

Because the number of individual county-level variables is large, factor analysis was used to reduce the number of contextual variables for the analysis. This statistical technique expresses a set of observed variables as a linear combination of a smaller number of underlying constructs or factors.

The factor analysis, which requires interval-level variables, involved three basic steps. In the first step, pairs of observed variables with high levels of association were identified by inspecting

TABLE B.1

VARIABLES AND DEFINITIONS BY DATA SOURCE

National Center for Health Statistics

Birth rate, 1986
Infant mortality rate, 1982-86 (average for nonwhites)
Median home value, 1980 (adjusted to 1989 dollars)
Percentage of births with low birth weight, 1986

Bureau of Economic Analysis

Earnings per job, 1987 (adjusted to 1989 dollars)

County and City Data Book

Civilian unemployment rate, 1986
Divorce rate, 1984
Median household income, 1979 (adjusted to 1989 dollars)
Percentage of births to mothers under 20 years old, 1984
Percentage of the population with 12 or more years of education, 1980
Serious crimes per 100,000 population, 1985

DEMO-DETAIL

Percentage of the population that is nonwhite, 1986
Percentage of the population under 5 years old, 1986
Percentage of the population age 65 years and older, 1986

National Council of Churches

Percentage of the total population that are religious adherents

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TABLE B.2

MEANS AND STANDARD DEVIATIONS OF CONTEXTUAL VARIABLES

Variables	Means	Standard Deviations
Birth rate	14.81	2.51
Civilian unemployment rate	7.42	3.18
Divorce rate	4.90	1.83
Earnings per job	21,511.35	4,646.13
Median home value	70,429.18	31,663.42
Median household income	27,166.45	6,015.20
Nonwhite infant mortality rate	12.08	9.92
Percentage of births to teenage mothers	13.00	5.31
Percentage of births with low birth weight	6.86	2.19
Percentage nonwhite	15.20	16.59
Percentage religious adherents	51.19	15.44
Percentage with 12 or more years of education	64.80	11.26
Percentage under 5 years old	7.51	1.16
Percentage 65 years old or older	13.14	3.71
Serious crimes per 100,000 population	4,059.03	2,625.66

a correlation matrix, and one of each pair of highly correlated variables was dropped from the factor analysis.[1] When two variables had a correlation greater than .70, one of the variables was not included in the factor equation. The correlation matrix of 62 county-level variables indicated that 20 pairs of observed variables had a correlation of .70 or higher (results not shown). Thus, the original set of 62 variables was reduced to 52 variables.

In the second step, principal component analysis was used to detect the minimum number of hypothetical factors that can account for the observed covariation among the variables. Principal component analysis identifies the number of underlying dimensions among the observed variables. The initial number of factors to be extracted depends on the eigenvalues of the variance-covariance matrix. Each eigenvalue represents the amount of variance explained by a given component. The proportion of variance explained by a given component is calculated by dividing the eigenvalue by the number of variables in the analysis (equivalently the sum of the eigenvalues). As a general rule, only those components with eigenvalues of 1 or greater are extracted.

Variables were first grouped by relevant contextual categories: economics, age structure, minority issues, socio-cultural phenomena, and family formation. These sets of variables were then analyzed separately to reduce the initial number of county-level variables to a manageable number. For each group, variables were eliminated one by one until the covariation among the variables was accounted for by only one underlying factor (results not shown). This results in a set of variables having a common interpretation. Seventeen economic variables were reduced to five variables. Eight minority variables were reduced to four variables. Six social-cultural variables were reduced to three variables. Sixteen age structure variables reduced to three variables. Any combination of the six family formation variables could not be reduced to a single underlying factor. Therefore, five family formation variables were dropped from the analysis; the birth rate was retained as a separate variable in the analysis.

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[1] Using two variables that appear to measure the same phenomenon in the same equation violates the rule of parsimony.

In the third step, the fifteen remaining county-level variables were entered into a single factor equation. Principal component analysis yielded four underlying factors (Table B.3): economic vitality, minority concentration, population age structure, and social disorganization. These four factors account for nearly 71 percent of the covariation among the observed variables.

While keeping the number of factors and communality estimates the same, the axis of the factor solution was rotated using the Harris-Kaiser oblique method. This rotation method does not impose the restriction that the factors be uncorrelated. Rotating the factors provides simpler and more easily interpretable factor loadings. Factor loadings are the coefficients in a factor pattern matrix that describe the magnitude of the relationship between a given observed variable and an underlying factor.

The factor loadings in the rotated factor pattern matrix show that three observed variables load high (>.50) on the social disorganization factor. Religiosity acts as a negative pressure on social disorganization, while unemployment and divorce act as pressures that increase social disorganization. Six observed variables load high on the economic vitality factor. Median home value, earnings per job, median household income, and educational attainment are positively related to economic vitality, while the unemployment rate and teenage births are negatively related to economic vitality. Four observed variables load high on the minority concentration factor. The infant mortality rate for nonwhites, percent low birth weight, percent nonwhite, and percent teen births are all positively associated with minority concentration. Three observed variables load high on the population age structure factor. The percentage of the population under four years old and the birth rate are positively related to the underlying factor, while the percentage of the population 65 years and older is negatively related. This suggests that the population age structure factor characterizes the youthfulness of the geographic region.

CONSTRUCTING CONTEXTUAL SCALES USING FACTOR SCORES

The value of a given unobservable factor for each county is represented by factor scores.

TABLE B.3

FACTOR PATTERN USING HARRIS-KAISER OBLIQUE ROTATION

Variable	Social Factor 1	Economic Factor 2	Population Factor 3	Minority Factor 4
Birth rate	.032	.257	.707*	.345
Civilian unemployment rate	.524*	-.689*	-.013	-.156
Divorce rate	.864*	-.016	-.012	-.051
Earnings per job	.038	.755*	-.158	.290
Median home value	.225	.809*	-.153	.017
Median household income	-.055	.839*	-.013	-.092
Nonwhite infant mortality rate	-.185	.168	.041	.759*
Percentage of births to teenage mothers	.253	-.663*	.090	.544*
Percentage of births with low birth weight	.028	-.290	-.247	.724*
Percentage nonwhite	-.072	-.017	-.009	.875*
Percentage religious adherents	-.690*	-.245	.005	-.026
Percentage with 12+ years of education	.074	.816*	.078	-.364
Percentage under age 5	-.064	-.309	.880*	-.300
Percentage age 65 and older	-.100	-.353	-.610*	-.276
Serious crimes per 100,000 population	.249	.499	.076	.413
Eigenvalue	4.319	3.137	1.721	1.427
Percent variance	28.793	20.916	11.473	9.514
Cumulative percent variance	28.793	49.709	61.182	70.696

* High factor loading

These factor scores were used in the multivariate modelling of parental fees. Factor scores for each of the four contextual factors were estimated by summing the products of the standardized values of the observed variables and the corresponding factor score coefficients for that contextual factor. Table B.4 presents the standardized factor score coefficients for each observed variable for each of the four contextual factors. The four newly created contextual scales are standardized to have a mean of 0 and a standard deviation of 1. Thus, a factor score is a relative measure of how one county compares to the average county for a given factor. For example, a county that receives a negative factor score on the economic vitality scale is less economically vital than the average county in the sample. Table B.5 presents the means and standard deviations of the fifteen constituent variables for low and high values on each contextual scale.

TABLE B.4

STANDARDIZED SCORING COEFFICIENTS ESTIMATED BY REGRESSION

Variable	Social Factor 1	Economic Factor 2	Population Factor 3	Minority Factor 4
Birth rate	.018	.061	.398	.120
Civilian unemployment rate	.301	-.163	-.007	-.054
Divorce rate	.497	-.004	-.007	-.018
Earnings per job	.022	.179	-.089	.101
Median home value	.129	.192	-.086	.006
Median household income	-.032	.199	-.007	-.032
Nonwhite infant mortality rate	-.106	.040	.023	.265
Percentage of births to teenage mothers	.145	-.157	.051	.189
Percentage of births with low birth weight	.016	-.069	-.139	.252
Percentage nonwhite	-.041	-.004	-.005	.305
Percentage religious adherents	-.397	-.058	.003	-.009
Percentage with 12+ years of education	.043	.194	.044	-.127
Percentage under age 5	-.037	-.073	.495	-.105
Percentage age 65 and older	-.057	-.084	-.343	-.096
Serious crimes per 100,000 population	.143	.118	.043	.144

TABLE B.5

MEANS AND STANDARD DEVIATIONS OF CONSTITUENT VARIABLES FOR LOW AND HIGH VALUES OF CONTEXTUAL SCALES

	Economic		Minority		Population		Social	
Variable	Low	High	Low	High	Low	High	Low	High
Birth rate	13.82 (2.63)	15.57 (2.08)	13.38 (1.61)	15.97 (2.55)	12.88 (1.40)	17.61 (2.11)	14.14 (2.20)	15.63 (2.71)
Civilian unemployment rate	9.64 (3.42)	5.42 (1.92)	7.52 (3.47)	7.70 (2.34)	7.40 (3.46)	7.24 (2.51)	5.93 (2.08)	8.43 (3.53)
Divorce rate	4.77 (1.74)	5.34 (1.69)	4.30 (1.96)	5.19 (1.77)	4.70 (1.94)	5.39 (1.65)	3.16 (0.92)	6.54 (1.55)
Earnings per job	17,920.04 (2,405.63)	25,648.11 (4,419.14)	19,543.72 (3,585.17)	22,370.06 (5,617.05)	21,447.58 (5,881.96)	22,195.45 (3,847.30)	20,960.90 (3,986.11)	22,476.99 (4,992.46)
Median home value	46,267.51 (9,242.51)	103,692.26 (34,566.23)	64,069.28 (22,218.27)	66,149.82 (34,985.26)	71,957.53 (36,070.86)	75,068.72 (33,824.69)	63,415.06 (23,484.80)	86,734.37 (39,844.52)
Median household income	21,734.31 (3,132.38)	33,410.17 (5,051.25)	26,619.97 (5,332.45)	24,889.41 (5,337.00)	26,635.32 (5,819.11)	28,005.71 (6,325.97)	28,093.39 (6,248.05)	27,680.50 (5,706.18)
Nonwhite infant mortality rate	11.12 (11.20)	14.90 (9.96)	2.94 (5.31)	19.00 (8.46)	10.76 (9.10)	14.16 (7.83)	11.05 (12.93)	11.51 (6.89)
Percentage of births to teenagers	17.39 (5.61)	9.85 (3.21)	9.52 (3.12)	17.41 (4.80)	12.38 (5.66)	13.62 (4.38)	9.99 (4.97)	13.91 (4.72)
Percentage of births with low birth weight	7.93 (2.42)	6.42 (1.60)	5.48 (1.99)	8.75 (1.97)	7.16 (2.30)	6.72 (2.24)	5.98 (1.81)	6.85 (2.00)
Percentage nonwhite	17.59 (19.81)	16.23 (15.23)	2.04 (2.14)	34.48 (14.71)	13.52 (17.02)	18.42 (16.20)	8.79 (13.63)	16.28 (15.77)
Percentage religious adherents	56.54 (15.66)	44.50 (11.45)	56.38 (18.18)	50.69 (12.38)	54.30 (17.70)	47.43 (13.40)	64.94 (13.52)	39.66 (10.53)

TABLE B.5 (Continued)

Variable	Economic		Minority		Population		Social	
	Low	High	Low	High	Low	High	Low	High
Percentage with 12+ years of education	53.63 (10.34)	74.43 (5.87)	67.73 (7.46)	58.28 (12.45)	63.09 (12.40)	67.35 (8.51)	65.37 (9.09)	68.18 (10.38)
Percentage under age 5	7.80 (1.13)	7.08 (1.17)	7.84 (1.14)	7.38 (1.12)	6.47 (0.88)	8.63 (0.96)	7.57 (1.20)	7.43 (1.13)
Percentage age 65 or older	14.78 (3.48)	10.84 (3.11)	15.16 (3.82)	12.01 (2.29)	16.01 (3.35)	9.78 (2.38)	14.50 (3.45)	12.31 (3.97)
Serious crimes per 100,000 population	2,210.83 (1,624.21)	5,625.86 (2,444.71)	2,329.20 (1,466.09)	5,240.38 (3,072.50)	3,142.48 (2,291.67)	4,964.12 (2,679.85)	2,514.65 (1,611.85)	5,503.27 (2,632.11)

SOURCE: Profile of Child Care Settings Study (Mathematica Policy Research, 1990).

NOTE: Low values fall below -.5 and high values are above .5 on a given contextual scale. Standard deviations are in parentheses.

APPENDIX C

SURVEY INSTRUMENT: CENTER-BASED PROGRAMS

CHILD CARE CENTERS - INTRODUCTION AND SCREENER

INTRODUCTION

IN1 Hello, my name is (INTERVIEWER'S NAME) from Mathematica Policy Research in Princeton, New Jersey. May I speak to the director of (CENTER NAME).

DIRECTOR AVAILABLE OR
  SPEAKING TO DIRECTOR....(GO TO IN5)....01
DIRECTOR NOT AVAILABLE...................00

IN2 What is the director's name, please? ENTER DIRECTOR'S NAME.

____

IN3 When would be a good time to call back? ENTER DATE AND TIME AND SKIP TO CALL BACK.

IN4 Please leave a message with (DIRECTOR'S NAME) that I will call back on (DAY) at (TIME) about a study Mathematica is conducting for the U.S. Department of Education. Thank you.

SKIP TO CALL BACK.

IN5 [Hello, my name is (INTERVIEWER'S NAME) from Mathematica Policy Research, in Princeton, New Jersey.] I am calling about a study of early childhood programs we are conducting for the U.S. Department of Education. We sent you a letter a few days ago explaining the study. Did you receive the letter?

YES........(GO TO IN7).........01
NO.............................00

IN6 The letter explained that this is a national study of day care centers, early education programs, and licensed home providers. In order to describe the child care available in this country, we will be asking about the characteristics of your program. The letter also explained that your participation is voluntary, and that we will protect all confidential information. The survey results will be reported only in aggregate statistical form. The interview will take 20 to 30 minutes. Do you have any questions?

* * * GO TO IN9 * * *

IN7 With the letter we sent a worksheet for you to complete to help you answer our questions. Did you complete the worksheet?

YES........(GO TO IN9).........01
NO.............................00

IN8 That's okay. I'll wait any time you have to check records.

CONTINUE TO IN9.

IN9 Shall we begin the interview?

YES.........(GO TO S1).........01
NO.............................00

IN10 Is there a better date and time to call back to complete the interview?

YES............................01
NO, REFUSAL....(GO TO IN12)....00

IN11 RECORD DATE AND TIME AND SKIP TO CALL BACK.

IN12 Is there another member of your staff who is knowledgeable about the children and activities of your program who could complete the interview?

YES........(GO TO IN15)........01
NO.............................00

IN13 Why do you not wish to participate in the study?

NOT ENOUGH TIME................01
NOT INTERESTED.................02
TOO BUSY.......................03
OTHER (SPECIFY):...............96

____

____

IN14 END OF INTERVIEW: SKIP TO CALLBACK.

IN15 What is that person's name?

ENTER PROXY'S NAME:

____

IN16 Is (PROXY'S NAME) available?

YES........(GO TO IN18)........01
NO.............................00

IN17 When would be a good time to call to complete the interview with (PROXY'S NAME)? ENTER DATE AND TIME AND SKIP TO CALLBACK.

IN18 WHEN PROXY COMES TO THE PHONE: Hello, my name is (INTERVIEWER'S NAME) from Mathematica Policy Research in Princeton, New Jersey. We are conducting a study of child care providers for the U.S. Department of Education. We recently sent a letter to (DIRECTOR'S NAME) which explained the study. (She/He) recommended that we speak to you to complete the telephone interview. The interview will take between 20 and 30 minutes to complete. May we begin?

YES.........(GO TO S1).........01
NO.............................00

IN19 When would be a good time to call you back?

ENTER DATE AND TIME AND SKIP TO CALLBACK.

SCREENER

S1 First, is your organization currently providing child care or education services to children at this location?

PROBE, IF "NO" OR "DON'T KNOW": In other words, is your organization an infant center, a day care center, an after-school center, a preschool or nursery school, a public school with a preschool or pre-kindergarten program, Head Start, a Montessori school or other type of program specializing in the care or development of children?

YES..........(GO TO S4)........01
NO.............................00
NO LONGER PROVIDE CHILD
  CARE.......(GO TO S3)........97

S2 How would you describe your organization? (RECORD VERBATIM)

S3 END OF INTERVIEW: Thank you for your cooperation. The rest of my questions are for organizations that provide child care or early education programs.

S4 Are you still located at (ADDRESS FROM LABEL)?

YES.........(GO TO S6).........01
NO.............................00

S5 What is your current address?

ENTER:

A. STREET ADDRESS: ________________________________

B. CITY: ________________________________

C. STATE: ¦___¦___¦

D. ZIP CODE: ¦___¦___¦___¦___¦___¦ - ¦___¦___¦___¦___¦

E. IF THE CITY HAS CHANGED: Are you still in (COUNTY) county?

YES.........(GO TO S6).........01
NO.............................00

F. We are only interviewing programs in certain counties. I will need to check with my supervisor to see if your program is still eligible. If you are still eligible, we will call you back shortly. Thank you.

S6 Do you currently care for....

	YES	NO
a. infants and toddlers under 3 years of age?...........	01	00
b. children 3 years old and above who have not yet entered kindergarten or regular school?........	01	00
c. school-age children, before or after kindergarten or regular school?....................	01	00

S7 Do more than half of the children in your program have handicaps? For example, handicaps such as physical impairments, severe emotional disturbance, mental retardation, or developmental delays which are associated with physical or cognitive impairments?

YES............................01
NO............(GO TO S9)......00
DON'T KNOW.....(GO TO S9)......98
REFUSED........(GO TO S9)......99

S8 Do you consider your program a program primarily for children with handicaps?

YES............................01
NO.............................00
DON'T KNOW.....................98
REFUSED........................99

S9 INTERVIEWER: DOES THE PROGRAM HAVE PRESCHOOL CHILDREN AGE 3 AND ABOVE? DOES S6b EQUAL "01"?

YES............................01
NO..........(GO TO A6).........00

S10 INTERVIEWER: IS THE PROGRAM PRIMARILY FOR CHILDREN WITH HANDICAPS? DOES S7 EQUAL "01" AND S8 EQUAL "01"?

YES............................01
NO..........(GO TO A1).........00

S11 The U.S. Department of Education is currently conducting a national study of educational programs for children with handicaps which includes early intervention and preschool programs. Because of this effort, the focus of this study is on early education and preschool programs that are primarily for children who are not handicapped. We would like to include your program in our study and ask you just a few questions about your program. The interview will only take 5 to 10 minutes. May we begin?

YES.........(GO TO A6).........01
NO.............................00

S12 When is a better time to call back to complete the interview? ENTER DATE AND TIME AND SKIP TO CALLBACK.

DAY CARE CENTER

QUESTIONNAIRE

A. GENERAL CHARACTERISTICS

A1 Now, I'd like to ask a few general questions about your preschool program. In the questions I will be asking you, I will refer to all children who are not yet enrolled in kindergarten or first grade as "preschool children."

In what type of place is your program located?

PROBE: Is it located in a religious building, school, work place, or in its own building?

RELIGIOUS BUILDING	01
PUBLIC SCHOOL	02
PRIVATE SCHOOL	03
UNIVERSITY OR COLLEGE	04
WORK PLACE	05
COMMUNITY CENTER OR MUNICIPAL BUILDING	06
INDEPENDENT STRUCTURE	07
OTHER (SPECIFY)	00
______________________________	
DON'T KNOW	98
REFUSED	99

A1a How many square feet of indoor space does your program use in caring for children?

PROBE: Your best estimate is fine.

|__|__|__|,|__|__|__| SQUARE FEET

DON'T KNOW	999998
REFUSED	999999

A2 How far is your program from the nearest bus, train, or subway stop?

ONE BLOCK OR LESS..............01
2 TO 6 BLOCKS..................02
7 BLOCKS TO 1 MILE.............03
1 TO 5 MILES...................04
MORE THAN 5 MILES..............05
DON'T KNOW.....................98
REFUSED........................99

A3 How many years has your preschool program been operating at its present location?

¦___¦___¦ YEARS AND ¦___¦___¦ MONTHS

OR

SINCE ¦___¦___¦ MONTH, 19 ¦___¦___¦
DON'T KNOW.......................98
REFUSED..........................99

A4 The following statements describe some of the goals of early childhood programs. Please tell me which of these goals describe the objectives of **your** program. Is one of the goals of your program...

	YES	NO	DON'T KNOW	REFUSED
a. To provide a warm and loving environment for children?..............	01	00	98	99
b. To provide care for children so parents can work?......................	01	00	98	99
c. To prepare children for school?...........	01	00	98	99
d. To provide compensatory education for disadvantaged children?.................	01	00	98	99
e. To promote children's development?........	01	00	98	99
f. To teach children appreciation for their culture?..........................	01	00	98	99
g. To provide religious instruction?.........	01	00	98	99

A5 IF RESPONDENT ANSWERS "YES" TO MORE THAN ONE GOAL AT A4, ASK: Which of these goals is the **most** important goal of your preschool program?

READ RESPONSES FROM A4 WHICH ARE CODED "YES" OR "01" IF NECESSARY.

PROVIDE A WARM AND LOVING ENVIRONMENT...............01
PROVIDING CHILD CARE SO PARENTS CAN WORK............02
PREPARING CHILDREN FOR SCHOOL.......................03
PROVIDING COMPENSATORY EDUCATION FOR DISADVANTAGED CHILDREN...........................04
PROMOTING CHILD DEVELOPMENT.........................05
TEACHING APPRECIATION FOR CULTURE...................06
PROVIDING RELIGIOUS INSTRUCTION.....................07
DON'T KNOW..98
REFUSED...99

A6 What is the earliest time that parents can drop off their children?

|__|__|:|__|__| AM............01
PM............02
DON'T KNOW.....................98
REFUSED........................99

A7 How late can parents pick up their children?

|__|__|:|__|__| AM............01
PM............02
DON'T KNOW.....................98
REFUSED........................99

A8 INTERVIEWER: DOES THE PROGRAM NOT SERVE PRESCHOOL CHILDREN AGE 3 AND ABOVE OR IS THE PROGRAM PRIMARILY FOR CHILDREN WITH HANDICAPS? DOES S9 EQUAL "00" OR S10 EQUAL "01"?

YES........(GO TO A11).........01
NO.............................00

A9 Early childhood programs sometimes offer before- and after-school programs for school-age children who attend local schools. Do you have a before-school program?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

A10 Do you have an after-school program?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

A11 How many days a week are you closed?

|____| DAYS

NONE........(GO TO A13)	00
DON'T KNOW	98
REFUSED	99

A12 Which days are you closed?

CODE ALL THAT APPLY

MONDAY	01
TUESDAY	02
WEDNESDAY	03
THURSDAY	04
FRIDAY	05
SATURDAY	06
SUNDAY	07
SATURDAY AND SUNDAY	08
NO OTHER DAYS	00
DON'T KNOW	98
REFUSED	99

A13 Altogether, how many weeks during the year do you **not** provide child care or early education services?

|__|__| WEEKS
DON'T KNOW....................98
REFUSED.......................99

A14 How many children are you licensed to care for?

PROBE: How many children are permitted to be at the center at one time?

|__|__|__| CHILDREN
NOT LICENSED..................997
DON'T KNOW....................998
REFUSED.......................999

A15 INTERVIEWER: DOES THE PROGRAM NOT CARE FOR PRESCHOOL CHILDREN AGE 3 AND ABOVE OR IS THE PROGRAM PRIMARILY FOR CHILDREN WITH HANDICAPS? DOES S9 EQUAL "00" OR S10 EQUAL "01"?

YES.........(GO TO C1).........01
NO.............................00

A16 Is your organization nonprofit or for-profit?

NON-PROFIT....................01
FOR PROFIT.....(GO TO A20).....02
DON'T KNOW....................98
REFUSED.......................99

A17 Is your program independent or is it sponsored by another organization?

PROBE: Does your program belong to or have an affiliation with another organization from which it receives direction and/or funding?

INDEPENDENT........(GO TO B1)............01
SPONSORED................................02
DON'T KNOW.........(GO TO B1)............98
REFUSED............(GO TO B1)............99

A18 What organization sponsors your program?

PROBE: Is your program sponsored by any other organizations?

CODE ALL THAT APPLY

HEAD START...............................01
SOCIAL SERVICE ORGANIZATION OR AGENCY....02
CHURCH OR RELIGIOUS GROUP................03
PUBLIC SCHOOL/BOARD OF EDUCATION.........04
PRIVATE SCHOOL, RELIGIOUS................05
PRIVATE SCHOOL, NONRELIGIOUS.............06
COLLEGE OR UNIVERSITY....................07
PRIVATE COMPANY OR INDIVIDUAL............08
NON-GOVERNMENT COMMUNITY ORGANIZATION....09
STATE OR LOCAL GOVERNMENT................10
SOME OTHER TYPE OF SPONSORING AGENCY
(SPECIFY)................................96

____

NO OTHERS................................95
DON'T KNOW...............................98
REFUSED..................................99

A19 IF A18 = 04 (PROGRAM SPONSORED BY PUBLIC SCHOOL OR BOARD OF EDUCATION) ASK:

Is your program funded by Chapter 1?

PROBE: Chapter 1 programs are programs that serve educationally disadvantaged children and receive funding through Chapter 1 of the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988.

YES.............................01
NO..............................00
DON'T KNOW......................98
REFUSED.........................99

*** GO TO B1 ***

A20 Is your program part of a local chain, a national chain, or is it independently owned and operated?

LOCAL CHAIN.....................01
NATIONAL CHAIN..................02
INDEPENDENT.....................03
DON'T KNOW......................98
REFUSED.........................99

B. ADMISSION POLICIES AND VACANCIES

B1 The next questions are about your admission policies and unfilled child care slots you may have, how you fill vacancies, and child turnover.

Early childhood programs have different policies regarding the children they admit. Do you accept children who are not toilet trained?

YES............................01

DEPENDS, OCCASIONAL
ACCIDENTS ARE OK.............02

NO.............................00

DON'T KNOW.....................98

REFUSED........................99

B2 Do you accept children whose first language is not English and do not speak English well enough to be understood?

YES............................01

NO............(GO TO B4)......00

DON'T KNOW.....(GO TO B4)......98

REFUSED........(GO TO B4)......99

B3 Do you have bilingual staff who help children who lack skills in English?

YES............................01

NO.............................00

HAD IN THE PAST................97

DON'T KNOW.....................98

REFUSED........................99

B4 Do you care for children who have diagnosed handicaps?

PROBE: Handicaps such as physical impairments, severe emotional disturbance, mental retardation, or developmental delays that are associated with physical or cognitive impairments?

YES............................01
YES, DECIDE ON CASE BY
  CASE BASIS...................02
NO.............................00
NOT NOW, BUT WOULD.............97
DON'T KNOW.....................98
REFUSED........................99

B5 Do you make a special effort to recruit and enroll specific types of children such as children in specific age groups or children with a specific background or need?

YES...........................01
NO.............(GO TO B7).....00
DON'T KNOW.....(GO TO B7).....98
REFUSED........(GO TO B7).....99

B6 What types of children do you target for recruiting?

PROBE: Any others?

CODE ALL THAT APPLY

CHILDREN IN A SPECIFIC AGE GROUP.............01
LOW INCOME CHILDREN..........................02
CHILDREN IN A SPECIFIC ETHNIC GROUP..........03
CHILDREN LIVING IN A SPECIFIC AREA...........04
CHILDREN IN A SPECIFIC RELIGIOUS GROUP.......05
OTHER (SPECIFY)..............................96

____

____

NO OTHER TARGET GROUP........................00
DON'T KNOW...................................98
REFUSED......................................99

B7 What steps do you take to try to find more children to care for?

PROBE: Any other steps?

CODE ALL THAT APPLY

NEWSPAPERS, ADVERTISEMENTS, OR YELLOW PAGES	01
REFERRALS FROM WELFARE OR SOCIAL SERVICE CASEWORKERS	02
REFERRALS FROM COMMUNITY AGENCIES OTHER THAN WELFARE OR SOCIAL SERVICE	03
A CHILD CARE RESOURCE AND REFERRAL AGENCY	04
REFERRALS FROM BULLETIN OR MESSAGE BOARDS	05
WORD OF MOUTH	06
OWN WAITING LIST	07
SHARE WAITING LIST	08
TAKE NO ACTION	09
PAMPHLETS OR FLYERS	10
OPEN HOUSES	11
CHECK WITH FAMILY DAY CARE PROVIDERS	12
REFERRALS FROM RESOURCE AND REFERRAL AGENCY	13
OTHER (SPECIFY) ______________________________	96
NO OTHER STEPS	00
DON'T KNOW	98
REFUSED	99

B8 The last time you had an opening, how long did it take you to find another child to care for?

|__|__| DAYS	01
WEEKS	02
MONTHS	03
CURRENTLY HAVE OPENING/ COULDN'T FIND ANOTHER CHILD	97
DON'T KNOW	98
REFUSED	99

B9 During January through March of this year, how many children left your program?

PROBE: Your best estimate is fine.

¦__¦__¦__¦ CHILDREN LEFT PROGRAM
DON'T KNOW........................998
REFUSED...........................999

B10 During January through March of this year, how many new children started attending your program?

PROBE: Your best estimate is fine.

¦__¦__¦__¦ CHILDREN STARTED ATTENDING
DON'T KNOW........................998
REFUSED...........................999

B11 Is your program listed with a resource and referral agency?

YES...............................01
NO................................00
DON'T KNOW........................98
REFUSED...........................99

B12 Do you have a waiting list?

YES...............................01
NO................................00
DON'T KNOW........................98
REFUSED...........................99

C. CHILDREN SERVED

C1 Next, I would like to talk about the ages of the children you care for and the groups they are in. For these questions you may need either class lists or the worksheet we sent you.

How many children are currently enrolled in your program, including all sessions your program provides for preschool children [and school-age children (before school/after school/before and after school)]?

WORKSHEET QUESTION 1.

¦__¦__¦__¦ CHILDREN

DON'T KNOW.....................998

REFUSED........................999

C2 Approximately how many of these children were absent (yesterday/last Friday)?

PROBE: You may give me the percentage who were absent (yesterday/last Friday.) Your best estimate is fine.

¦__¦__¦__¦ CHILDREN

OR

¦__¦__¦__¦ PERCENT ABSENT

DON'T KNOW....(SKIP TO C3)....998

REFUSED.......(SKIP TO C3)....999

C2A Is this rate of absence typical?

YES............................01

NO.............................00

DON'T KNOW.....................98

REFUSED........................99

C3 How many of the children enrolled in your preschool program [and your (before/after/before and after) school program(s)] are ...

WORKSHEET QUESTION 2.

ASK ONLY ABOUT AGE RANGES SERVED FROM S6.

	NUMBER	DON'T KNOW	REFUSED
a. younger than 1 year old?.....	¦__¦__¦__¦	998	999
b. 1 year old?.................	¦__¦__¦__¦	998	999
c. 2 years old?................	¦__¦__¦__¦	998	999
d. 3 years old?................	¦__¦__¦__¦	998	999
e. 4 years old but not yet in kindergarten?...........	¦__¦__¦__¦	998	999
f. 5 years old but not yet in kindergarten?...........	¦__¦__¦__¦	998	999
g. kindergarten or school age?......................	¦__¦__¦__¦	998	999

C4 Approximately what number or what percent of the children enrolled in your program are...

	NUMBER		PERCENT	DON'T KNOW	REFUSED
a. White, non-Hispanic?....	¦___¦___¦___¦	OR	¦___¦___¦___¦	998	999
b. Black, non-Hispanic?....	¦___¦___¦___¦	OR	¦___¦___¦___¦	998	999
c. Hispanic?..............	¦___¦___¦___¦	OR	¦___¦___¦___¦	998	999
d. Asian or Pacific Islander?............	¦___¦___¦___¦	OR	¦___¦___¦___¦	998	999
e. American Indian or Alaskan Native?.......	¦___¦___¦___¦	OR	¦___¦___¦___¦	998	999
f. Of other racial or ethnic groups? (SPECIFY).....	¦___¦___¦___¦	OR	¦___¦___¦___¦	998	999

C5 INTERVIEWER: IS THE PROGRAM PRIMARILY FOR CHILDREN WITH HANDICAPS? DOES S10 EQUAL "01"?

YES............................01
NO.........(GO TO C7).........02

C6 How many or what percentage of the children you serve are not handicapped?

¦___¦___¦___¦ NUMBER
OR
¦___¦___¦___¦ PERCENT
DON'T KNOW.....................998
REFUSED........................999

* * * GO TO I12 * * *

C7 How many groups of children do you have? Please include groups in all of the programs or sessions that you offer for preschool children. [Please also include groups in your (before school/after school/before and after school) program.]

WORKSHEET QUESTION 3.

PROBE: By group we mean children who are cared for together for most of the day with an assigned teacher or group of teachers. If children change groups frequently during the day, please tell me about your groups during a typical (morning/afternoon) activity period.

¦__¦__¦ GROUPS
DON'T KNOW.....(GO TO C23).....98
REFUSED........(GO TO C23).....99

C8 INTERVIEWER: IS THERE ONE GROUP? DOES C7 EQUAL "01?"

YES....(GO TO C11, GROUP A)....01
NO.............................00

C9 Next, I would like to ask you about each of your (NUMBER FROM C7) groups. CONTINUE TO C10, GROUP A.

WORKSHEET QUESTION 4.

		GROUP A	GROUP B	GROUP C	GROUP D
C10	Please tell me the name of the group or class that has the (youngest/next youngest) children. ASK FOR NAMES OF ALL (NUMBER FROM C7) GROUPS, THEN ASK C11 THROUGH C22 FOR EACH GROUP.	ENTER NAME OF GROUP	ENTER NAME OF GROUP	ENTER NAME OF GROUP	ENTER NAME OF GROUP
C11	How old is the youngest child in [that group/the (GROUP NAME) group]?	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99
C12	How old is the oldest child in [that group/the (GROUP NAME) group]?	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99	¦__¦__¦ YEARS ¦__¦__¦ MONTHS DON'T KNOW......98 REFUSED.........99
C13	How many children are in [that group/the (GROUP NAME) group]?	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99
C14	How many more children would you be able and willing to accept in this group?	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99	¦__¦__¦ CHILDREN DON'T KNOW......98 REFUSED.........99

		GROUP A	GROUP B	GROUP C	GROUP D
C15	Which days of the week do **most** of the children in this group attend your center?	MONDAY...........01 TUESDAY..........02 WEDNESDAY........03 THURSDAY.........04 FRIDAY...........05 SATURDAY.........06 SUNDAY...........07 MONDAY THROUGH FRIDAY.........08 NO OTHER DAYS....00 DON'T KNOW.......98 REFUSED..........99	MONDAY...........01 TUESDAY..........02 WEDNESDAY........03 THURSDAY.........04 FRIDAY...........05 SATURDAY.........06 SUNDAY...........07 MONDAY THROUGH FRIDAY.........08 NO OTHER DAYS....00 DON'T KNOW.......98 REFUSED..........99	MONDAY...........01 TUESDAY..........02 WEDNESDAY........03 THURSDAY.........04 FRIDAY...........05 SATURDAY.........06 SUNDAY...........07 MONDAY THROUGH FRIDAY.........08 NO OTHER DAYS....00 DON'T KNOW.......98 REFUSED..........99	MONDAY...........01 TUESDAY..........02 WEDNESDAY........03 THURSDAY.........04 FRIDAY...........05 SATURDAY.........06 SUNDAY...........07 MONDAY THROUGH FRIDAY.........08 NO OTHER DAYS....00 DON'T KNOW.......98 REFUSED..........99
C16	What time does this group's activities usually begin?	¦___¦___¦:¦___¦___¦ TIME BEGIN AM...............01 PM...............02 DON'T KNOW.......98 REFUSED..........99	¦___¦___¦:¦___¦___¦ TIME BEGIN AM...............01 PM...............02 DON'T KNOW.......98 REFUSED..........99	¦___¦___¦:¦___¦___¦ TIME BEGIN AM...............01 PM...............02 DON'T KNOW.......98 REFUSED..........99	¦___¦___¦:¦___¦___¦ TIME BEGIN AM...............01 PM...............02 DON'T KNOW.......98 REFUSED..........99
C17	How many hours per day are **most** of the children in this group at your center?	¦___¦___¦ HOURS ¦___¦___¦ MINUTES DON'T KNOW.......98 REFUSED..........99	¦___¦___¦ HOURS ¦___¦___¦ MINUTES DON'T KNOW.......98 REFUSED..........99	¦___¦___¦ HOURS ¦___¦___¦ MINUTES DON'T KNOW.......98 REFUSED..........99	¦___¦___¦ HOURS ¦___¦___¦ MINUTES DON'T KNOW.......98 REFUSED..........99
C18	How many teachers would be with [your/the (GROUP NAME)] group during a typical (morning) activity period? Include lead teachers and other teachers.	¦___¦ TEACHERS DON'T KNOW.......98 REFUSED..........99	¦___¦ TEACHERS DON'T KNOW.......98 REFUSED..........99	¦___¦ TEACHERS DON'T KNOW.......98 REFUSED..........99	¦___¦ TEACHERS DON'T KNOW.......98 REFUSED..........99
C19	During a typical (morning) activity period, how many assistant teachers or aides help with this group?	¦___¦ AIDES DON'T KNOW.......98 REFUSED..........99	¦___¦ AIDES DON'T KNOW.......98 REFUSED..........99	¦___¦ AIDES DON'T KNOW.......98 REFUSED..........99	¦___¦ AIDES DON'T KNOW.......98 REFUSED..........99

	GROUP A	GROUP B	GROUP C	GROUP D
C20 During a typical (morning) activity period, how many volunteers help with this group?	¦___¦ VOLUNTEERS DON'T KNOW.................98 REFUSED....................99	¦___¦ VOLUNTEERS DON'T KNOW.................98 REFUSED....................99	¦___¦ VOLUNTEERS DON'T KNOW.................98 REFUSED....................99	¦___¦ VOLUNTEERS DON'T KNOW.................98 REFUSED....................99
C21 During a typical (morning) activity period, how many other adults help with this group?	¦___¦ ADULTS DON'T KNOW.................98 REFUSED....................99	¦___¦ ADULTS DON'T KNOW.................98 REFUSED....................99	¦___¦ ADULTS DON'T KNOW.................98 REFUSED....................99	¦___¦ ADULTS DON'T KNOW.................98 REFUSED....................99
C22 INTERVIEWER: IS THERE ANOTHER GROUP?	YES......(GO TO C11, NEXT GROUP).......01 NO.......(GO TO C23).......00	YES......(GO TO C11, NEXT GROUP).......01 NO.......(GO TO C23).......00	YES......(GO TO C11, NEXT GROUP).......01 NO.......(GO TO C23).......00	YES......(GO TO C11, NEXT GROUP).......01 NO.......(GO TO C23).......00

FEES

C23 The next questions are about the fees which are charged for the children in your preschool program [and your (before-school/after-school/before- and after-school) program.]

First, how many different fees are charged for the children in your program?

¦___¦___¦ DIFFERENT FEES
MORE THAN 10 FEES...(GO TO C25)...95
SLIDING SCALE.......(GO TO C25)...96
NO FEE CHARGED......(GO TO C32)...97
DON'T KNOW..........(GO TO C25)...98
REFUSED.............(GO TO C25)...99

C24 Next, I would like to ask you about each of the (NUMBER FROM C23) fees you charge. Please tell me the number of days and hours per day the fee covers, the amount charged, the number of children who are charged each fee, and the age range of children covered. Let's start with the highest fee you charge.

	FREQUENCY	FEE	NUMBER OF CHILDREN	AGE RANGE
a.	¦__¦__¦ DAYS	$ ¦__¦,¦__¦__¦__¦.¦__¦__¦	¦__¦__¦__¦	¦__¦__¦ YEARS
	AND	DON'T KNOW...9998	DON'T KNOW...998	TO
	¦__¦__¦ HOURS PER DAY	REFUSED......9999	REFUSED......999	¦__¦__¦ YEARS
	DON'T KNOW.........98	PER HOUR.......01 DAY........02		DON'T KNOW...98
	REFUSED...........99	WEEK.......03 MONTH......04 YEAR.......05		REFUSED......99
b.	¦__¦__¦ DAYS	$ ¦__¦,¦__¦__¦__¦.¦__¦__¦	¦__¦__¦__¦	¦__¦__¦ YEARS
	AND	DON'T KNOW...9998	DON'T KNOW...998	TO
	¦__¦__¦ HOURS PER DAY	REFUSED......9999	REFUSED......999	¦__¦__¦ YEARS
	DON'T KNOW.........98	PER HOUR.......01 DAY........02		DON'T KNOW...98
	REFUSED...........99	WEEK.......03 MONTH......04 YEAR.......05		REFUSED......99

	FREQUENCY	FEE	NUMBER OF CHILDREN	AGE RANGE
c.	¦__¦__¦ DAYS	$ ¦__¦,¦__¦__¦__¦.¦__¦__¦	¦__¦__¦__¦	¦__¦__¦ YEARS
	AND	DON'T KNOW...9998	DON'T KNOW...998	TO
	¦__¦__¦ HOURS PER DAY	REFUSED......9999	REFUSED......999	¦__¦__¦ YEARS
	DON'T KNOW.........98	PER HOUR.......01		DON'T KNOW........98
		DAY........02		
	REFUSED............99	WEEK.......03		REFUSED...........99
		MONTH......04		
		YEAR.......05		
d.	¦__¦__¦ DAYS	$ ¦__¦,¦__¦__¦__¦.¦__¦__¦	¦__¦__¦__¦	¦__¦__¦ YEARS
	AND	DON'T KNOW...9998	DON'T KNOW...998	TO
	¦__¦__¦ HOURS PER DAY	REFUSED......9999	REFUSED......999	¦__¦__¦ YEARS
	DON'T KNOW.........98	PER HOUR.......01		DON'T KNOW........98
		DAY........02		
	REFUSED............99	WEEK.......03		REFUSED...........99
		MONTH......04		
		YEAR.......05		
e.	¦__¦__¦ DAYS	$ ¦__¦,¦__¦__¦__¦.¦__¦__¦	¦__¦__¦__¦	¦__¦__¦ YEARS
	AND	DON'T KNOW...9998	DON'T KNOW...998	TO
	¦__¦__¦ HOURS PER DAY	REFUSED......9999	REFUSED......999	¦__¦__¦ YEARS
	DON'T KNOW.........98	PER HOUR.......01		DON'T KNOW........98
		DAY........02		
	REFUSED............99	WEEK.......03		REFUSED...........99
		MONTH......04		
		YEAR.......05		
f.	¦__¦__¦ DAYS	$ ¦__¦,¦__¦__¦__¦.¦__¦__¦	¦__¦__¦__¦	¦__¦__¦ YEARS
	AND	DON'T KNOW...9998	DON'T KNOW...998	TO
	¦__¦__¦ HOURS PER DAY	REFUSED......9999	REFUSED......999	¦__¦__¦ YEARS
	DON'T KNOW.........98	PER HOUR.......01		DON'T KNOW........98
		DAY........02		
	REFUSED............99	WEEK.......03		REFUSED...........99
		MONTH......04		
		YEAR.......05		
g.	¦__¦__¦ DAYS	$ ¦__¦,¦__¦__¦__¦.¦__¦__¦	¦__¦__¦__¦	¦__¦__¦ YEARS
	AND	DON'T KNOW...9998	DON'T KNOW...998	TO
	¦__¦__¦ HOURS PER DAY	REFUSED......9999	REFUSED......999	¦__¦__¦ YEARS
	DON'T KNOW.........98	PER HOUR.......01		DON'T KNOW........98
		DAY........02		
	REFUSED............99	WEEK.......03		REFUSED...........99
		MONTH......04		
		YEAR.......05		

	FREQUENCY	FEE	NUMBER OF CHILDREN	AGE RANGE
h.	¦__¦__¦ DAYS AND ¦__¦__¦ HOURS PER DAY DON'T KNOW.........98 REFUSED............99	$ ¦__¦,¦__¦__¦__¦ DON'T KNOW...9998 REFUSED......9999 PER HOUR.......01 DAY........02 WEEK.......03 MONTH......04 YEAR.......05	¦__¦__¦__¦ DON'T KNOW...998 REFUSED......999	¦__¦__¦ YEARS TO ¦__¦__¦ YEARS DON'T KNOW........98 REFUSED...........99
i.	¦__¦__¦ DAYS AND ¦__¦__¦ HOURS PER DAY DON'T KNOW.........98 REFUSED............99	$ ¦__¦,¦__¦__¦__¦ DON'T KNOW...9998 REFUSED......9999 PER HOUR.......01 DAY........02 WEEK.......03 MONTH......04 YEAR.......05	¦__¦__¦__¦ DON'T KNOW...998 REFUSED......999	¦__¦__¦ YEARS TO ¦__¦__¦ YEARS DON'T KNOW........98 REFUSED...........99
j.	¦__¦__¦ DAYS AND ¦__¦__¦ HOURS PER DAY DON'T KNOW.........98 REFUSED............99	$ ¦__¦,¦__¦__¦__¦ DON'T KNOW...9998 REFUSED......9999 PER HOUR.......01 DAY........02 WEEK.......03 MONTH......04 YEAR.......05	¦__¦__¦__¦ DON'T KNOW...998 REFUSED......999	¦__¦__¦ YEARS TO ¦__¦__¦ YEARS DON'T KNOW........98 REFUSED...........99

*** GO TO C28 ***

C25 What is the highest fee you charge?

$ ¦___¦,¦___¦___¦___¦.¦___¦___¦	PER HOUR...01---> SKIP TO C26
	DAY........02
DON'T KNOW...(GO TO C26)...9998	WEEK.......03
REFUSED......(GO TO C26)...9999	MONTH......04
	YEAR.......05

C25A How many (days and) hours per day does that fee cover?

¦___¦___¦ DAYS AND ¦___¦___¦ HOURS PER DAY

DON'T KNOW.................................98

REFUSED....................................99

C26 What is the lowest fee you charge?

$ ¦___¦,¦___¦___¦___¦.¦___¦___¦	PER HOUR...01---> SKIP TO C27
NO FEE......(GO TO C27).....00	DAY........02
DON'T KNOW..(GO TO C27)...9998	WEEK.......03
REFUSED.....(GO TO C27)...9999	MONTH......04
	YEAR.......05

C26A And how many (days and) hours per day does that fee cover?

¦___¦___¦ DAYS AND ¦___¦___¦ HOURS PER DAY

DON'T KNOW.................................98

REFUSED....................................99

C27 What is the average fee you charge?

PROBE: Your best estimate would be fine.

$ ¦___¦,¦___¦___¦___¦.¦___¦___¦ PER HOUR...01---> SKIP TO C28
DAY........02
DON'T KNOW...(GO TO C28)..9998 WEEK.......03
REFUSED......(GO TO C28)..9999 MONTH......04
YEAR.......05

C27A And how many (days and) hours per day does that fee cover?

¦___¦___¦ DAYS AND ¦___¦___¦ HOURS PER DAY
DON'T KNOW..................................98
REFUSED.....................................99

C28 Do you sometimes charge different amounts depending on ...

		YES	NO	DON'T KNOW	REFUSED
a.	The number of children from the same family?.......	01	00	98	99
b.	Family income?.............	01	00	98	99
c.	The number of hours children attend the program?..................	01	00	98	99
	If A6 is before 8:00 am or A7 is after 5:00 pm, ask:				
	c1. Whether child attends the program for extended hours?..........	01	00	98	99
d.	The child's age?...........	01	00	98	99
e.	Whether the child is toilet trained?............	01	00	98	99
f.	Whether the child has a diagnosed handicap?.........	01	00	98	99
g.	Whether parents or an outside agency such as welfare or an employment or training program is paying for the care?..................	01	00	98	99
h.	Whether or not you provide special services?...........	01	00	98	99
	If C28h = 01 (YES), ask:				
	For which of the following services do you charge different amounts?				
	h1. Meals..................	01	00	98	99
	h2. Transportation.........	01	00	98	99
	h3. Diapers................	01	00	98	99
	h4. Other (SPECIFY)........	01	00	98	99

g. Are there any other reasons why you charge different amounts? (SPECIFY).........01 00 98 99

____

____

C29 INTERVIEWER: DOES THE CENTER CHARGE MORE THAN 10 FEES OR HAVE A SLIDING FEE SCHEDULE? DOES C23 EQUAL "95" OR "96"?

YES.........(GO TO C32)........01
NO............................00

C30 INTERVIEWER: DO FEES VARY ACCORDING TO FAMILY INCOME? DOES C28a EQUAL "01"?

YES............................01
NO..........(GO TO C32)........00

C31 Which of the fees you charge are for children from low income households?

ENTER AN "01" NEXT TO THE LETTERS OF FEES CHARGED FOR LOW-INCOME CHILDREN.

a. |___|___| f. |___|___|
b. |___|___| g. |___|___|
c. |___|___| h. |___|___|
d. |___|___| i. |___|___|
e. |___|___| j. |___|___|

DON'T KNOW.....................98
REFUSED........................99

C32 Do the questions I just asked you about the fees you charge adequately describe your fee schedule?

YES.............(GO TO C34)....01
NO............................00
DON'T KNOW......(GO TO C34)....98
REFUSED.........(GO TO C34)....99

C33 Please tell me what additional information we should know about your fee schedule.

____

____

____

____

C34 INTERVIEWER: DOES THE PROGRAM HAVE PRESCHOOL CHILDREN 3 YEARS OLD AND ABOVE? DOES S6b EQUAL "01"?

YES............................01
NO...........(GO TO I12).......00

C35 INTERVIEWER: IS THIS PROGRAM A PUBLIC SCHOOL PROGRAM? DOES A18="04"?

YES..........(GO TO E1)........01
NO............................00

D. SUBSIDIES

D1 The next questions are about government subsidies you or the parents of children may receive.

Approximately, what percent of the children who attend your program have a parent who receives AFDC or other public assistance such as food stamps, SSI, or WIC benefits?

PROBE: Your best estimate is fine.

¦___¦___¦___¦ PERCENT

DON'T KNOW....................998

REFUSED.......................999

D2 Does a federal, state or local agency such as a human services agency, an education department, welfare, or an employment or training program pay for any of the children you care for?

YES...........................01

NO............(GO TO E1)......00

DON'T KNOW.....(GO TO E1)......98

REFUSED........(GO TO E1)......99

D3 How many children are paid by a federal, state, or local agency?

¦__¦__¦__¦ CHILDREN

ALL OF THEM...................997

DON'T KNOW....................998

REFUSED.......................999

D4 Do the agencies pay you directly for slots, pay you for vouchers or certificates received from parents, pay the parents in cash, or does it vary according to the child?

AGENCY PAYS PROGRAM FOR
  SLOTS(S)....................01

AGENCY PAYS PROVIDER FOR
  VOUCHERS....................02

AGENCY PAYS PARENTS IN CASH....03

VARIES PER CHILD..............04

DON'T KNOW....................98

REFUSED.......................99

D5 For how many of the children in your program do you receive payment or partial payment by means of vouchers?

PROBE: Vouchers are certificates that parents may receive from a social service agency and use to pay for their child's care. The program can then turn them in for cash payment.

|__|__|__| CHILDREN

NONE.........................000

DON'T KNOW...................998

REFUSED......................999

E. STAFF

E1 The next questions I have are about the teachers, specialists, assistant teachers, aides, other paid adults and volunteers who work in your **preschool** program. By teachers we mean persons in charge of a group or classroom of children, often with staff supervisory responsibilities.

First, how many teachers do you employ?

PROBE: Include lead teachers and other teachers, including special subject teachers such as music and art teachers.

|__|__|__| TEACHERS
NONE...........(GO TO E3).....000
DON'T KNOW.....(GO TO E3).....998
REFUSED........(GO TO E3).....999

E2 (Does that teacher/How many teachers) work full time?

PROBE: By full-time I mean at least 35 hours per week or the full hours your program operates. Please include paid preparation time as well as time spent in the classroom.

|__|__|__| FULL-TIME TEACHERS
DON'T KNOW....................998
REFUSED.......................999

E3 How many specialists do you employ?

PROBE: Specialists include social workers, family outreach workers, psychologists, nurses, etc.

|__|__|__| SPECIALISTS
NONE..........................000
DON'T KNOW....................998
REFUSED.......................999

E4 How many assistant teachers and aides do you employ?

¦__¦__¦__¦ ASSISTANT TEACHERS AND AIDES
NONE..........(GO TO E6)......000
DON'T KNOW....(GO TO E6)......998
REFUSED.......(GO TO E6)......999

E5 (Does that person/How many of them) work full-time?

¦__¦__¦__¦ FULL-TIME ASSISTANT TEACHERS AND AIDES
DON'T KNOW....................998
REFUSED.......................999

E6 How many other adult employees help with caring for children?

¦__¦__¦__¦ OTHER ADULTS
NONE.......(GO TO E8).........00
DON'T KNOW....................98
REFUSED.......................99

E7 Approximately how many hours per week (do/does) (this/these) adults(s) usually help with children?

¦___¦___¦ HOURS
DON'T KNOW....................98
REFUSED.......................99

E8 How many volunteers assist in your program on a regular basis?

¦__¦__¦__¦ VOLUNTEERS
NONE...........(GO TO E10)....000
DON'T KNOW.....(GO TO E10)....998
REFUSED........(GO TO E10)....999

E9 Approximately how many hours per week [(do/does) your volunteer(s) usually work)]?

¦___¦___¦ HOURS
DON'T KNOW.....................98
REFUSED........................99

E10 Approximately what percent or what number of the paid classroom staff working in your program are...

		NUMBER		PERCENT	DON'T KNOW	REFUSED
a.	White, non-Hispanic?.........	¦__¦__¦__¦	OR	¦__¦__¦__¦	998	999
b.	Black, non-Hispanic?.........	¦__¦__¦__¦	OR	¦__¦__¦__¦	998	999
c.	Hispanic?....................	¦__¦__¦__¦	OR	¦__¦__¦__¦	998	999
d.	Asian or Pacific Islander?...	¦__¦__¦__¦	OR	¦__¦__¦__¦	998	999
e.	American Indian or Alaskan Native?....................	¦__¦__¦__¦	OR	¦__¦__¦__¦	998	999
f.	Of other racial or ethnic groups? (SPECIFY)..........	¦__¦__¦__¦	OR	¦__¦__¦__¦	998	999

____

____

E11 Thinking of the **highest** education level completed, how many of your **teachers**, (both full- and part-time) have...

PROBE: Please include only the (NUMBER FROM E1) teachers.

WORKSHEET QUESTION 5.

	NUMBER	DON'T KNOW	REFUSED
a. A graduate degree (M.A., Ph.D., or Ed.D)?.....	¦__¦__¦	98	99
b. A Bachelor's degree (B.A. or B.S.)?...........	¦__¦__¦	98	99
c. An Associates of Arts (A.A.) degree?..........	¦__¦__¦	98	99
d. A Child Development Associate (CDA) credential?	¦__¦__¦	98	99
e. Some college, but no degree?..................	¦__¦__¦	98	99
f. A high school diploma or GED?.................	¦__¦__¦	98	99
g. How many of your teachers have not completed high school or obtained a GED?......	¦__¦__¦	98	99

E12 INTERVIEWER: DOES THE TOTAL NUMBER OF TEACHERS IN E11a THROUGH E11g EQUAL E1?

YES.........(GO TO E14)........01
NO.............................00

E13 INTERVIEWER: REVIEW RESPONSES TO E11a THROUGH E11g WITH RESPONDENT THEN JUMP BACK AND MAKE CORRECTIONS UNTIL TOTAL EQUALS E1.

E14 In the last year have any of your (NUMBER FROM E1) teachers received ten hours or more of additional child-related training from...

	YES	NO	DON'T KNOW	REFUSED
a. a local college or junior college? ..	01	00	98	99
b. a resource and referral network?	01	00	98	99
c. a government agency or program?	01	00	98	99
d. programs sponsored by your center? ..	01	00	98	99
e. Have any of your teachers had child-related training from any other source? (SPECIFY)..................	01	00	98	99

____

E15 During the past 12 months, how many lead teachers and other teachers left your program? Include both full-time and part-time teachers and both regular and special-subject teachers.

¦__¦__¦ TEACHERS
DON'T KNOW....................98
REFUSED.......................99

E16 During the last 12 months, how many new lead teachers and other teachers have been hired?

¦__¦__¦ TEACHERS
DON'T KNOW....................98
REFUSED.......................99

E17 How many openings for lead teachers and other teachers do you currently have?

¦__¦__¦ UNFILLED POSITIONS
DON'T KNOW....................98
REFUSED.......................99

E18 Thinking about the last time you had to fill a teaching vacancy, how long was it from the time a teacher left to the time a replacement was hired?

PROBE: Exclude any time during which your program was not operating.

¦__¦__¦__¦ DAYS................01
WEEKS...............02
MONTHS..............03
YEARS...............04
DON'T KNOW....................98
REFUSED.......................99

E19 What do you do when a lead teacher or other teacher is sick?

CODE ALL THAT APPLY

HIRE A SUBSTITUTE TEACHER	01
REARRANGE STAFF TO OPERATE WITHOUT THAT TEACHER	02
ASK A PARENT OR OTHER VOLUNTEER TO HELP	03
CANCEL THE CLASS OR GROUP SESSION	04
OTHER (SPECIFY) ______________________	05
NOTHING ELSE	00
DON'T KNOW	98
REFUSED	99

E20 IF MORE THAN ONE TEACHER, ASK:

Next, I would like to ask you some specific questions about the training and experience of one of the teachers in your program who teaches children between 3 and 5 years old. I would like you to think about the teacher whose last name begins with a letter that is closest to the letter [LETTER TO BE RANDOMLY SELECTED BY CATI]. Think only of teachers, not assistant teachers and aides. What is that teacher's first name?

IF ONE TEACHER, ASK: May I have your teacher's first name?

PROBE: A nickname or initials are fine. We only use the teacher's name as a reference for the following questions.

ENTER TEACHER'S FIRST NAME. ______________________

E21 Has (NAME) had any special child care or early education training, beyond any experience she/he may have in caring for (her/his) own children?

YES		01
NO	(GO TO E23)	00
DON'T KNOW	(GO TO E23)	98
REFUSED	(GO TO E23)	99

E22 What kind of training has (NAME) had?

PROBE: Any other type of training?

CHILD DEVELOPMENT ASSOCIATE (CDA) TRAINING	01
TEACHER TRAINING	02
NURSE'S TRAINING OR HEALTH COURSES	03
TRAINING BY REFERRAL OR GOVERNMENT AGENCY	04
CHILD CARE COURSES OR WORKSHOPS	05
CHILD DEVELOPMENT OR PSYCHOLOGY COURSES IN SCHOOL	06
OTHER TRAINING FOCUSED ON EDUCATION (SUCH AS ELEMENTARY EDUCATION)	07
OTHER TRAINING FOCUSED ON SOCIAL SERVICES (SUCH AS SOCIAL WORK)	08
OTHER (SPECIFY)	96

NO OTHER TYPES OF TRAINING	00
DON'T KNOW	98
REFUSED	99

E23 How many years of experience does (NAME) have working in a child care setting with children younger than kindergarten?

PROBE: Your best estimate is fine.

|__|__| YEARS AND |__|__| MONTHS

DON'T KNOW	98
REFUSED	99

E24 How long has (NAME) worked in your program?

¦__¦__¦ YEARS AND ¦__¦__¦ MONTHS
DON'T KNOW.....................98
REFUSED........................99

E25 How many hours per week does (NAME) usually work?

¦__¦__¦ HOURS PER WEEK
DON'T KNOW.....................98
REFUSED........................99

E26 What is (NAME)'s annual salary before taxes?

$ ¦__¦__¦__¦,¦__¦__¦__¦
DON'T KNOW.................999998
REFUSED....................999999

E27 Does (NAME) receive any of the following fringe benefits?

	YES	NO	DON'T KNOW	REFUSED
a. Reduced child care fee for (her/his) own children?..............	01	00	98	99
b. Educational stipend to cover workshops or conferences?............	01	00	98	99
c. Retirement or pension plans?.........	01	00	98	99
d. Life insurance?......................	01	00	98	99
e. Health insurance?....................	01	00	98	99
f. Paid (maternity/paternity) leave?....	01	00	98	99
g. INTERVIEWER: IF E27f EQUALS "01", GO TO E27h, ELSE ASK: Unpaid, but job protected (maternity/paternity) leave?....................	01	00	98	99
h. Paid sick leave?.....................	01	00	98	99
i. Paid vacation leave?.................	01	00	98	99

E28 What is (NAME)'s age?

|__|__| YEARS
DON'T KNOW......................98
REFUSED........................99

E29 Do the questions I just asked you about your staff adequately describe the staffing of your program?

YES...............(GO TO F1)...01
NO.............................00
DON'T KNOW........(GO TO F1)...98
REFUSED...........(GO TO F1)...99

E30 Please tell me what additional information we should know about your staffing.

____

____

____

____

F. CURRICULUM AND ACTIVITIES

F1 Next, I would like to talk about your program's curriculum and activities.

Has your program established formal or informal arrangements with other programs (or public schools) to coordinate curriculums, conduct testing, or coordinate the care of children?

YES............................01
NO.............................00
DON'T KNOW.....................98
REFUSED........................99

F2 Is your program accredited by the National Academy of Early Childhood Programs?

YES............................01
NO.............................00
DON'T KNOW.....................98
REFUSED........................99

F3 Do classroom teachers have paid time regularly scheduled during the day for planning activities for children in their classes? Do not count time when teachers are also supervising children.

YES............................01
NO.............................00
SOMETIMES......................02
DON'T KNOW.....................98
REFUSED........................99

F4 Do teachers follow a written curriculum when planning activities for the children in their group?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

F5 Next, I would like to ask you about the activities of the children you care for. What percentage of the time during a typical day do preschool children between the ages of 3 and 5 usually spend in the following types of activities? I will be asking about physical activities, creative activities, instructional activities, other group activities, and free choice activities. What percentage of time is spent in....

	PERCENT	HOURS:MINUTES	DON'T KNOW	REFUSED
a. Physical activities led by an adult, such as running, climbing, balancing or crawling?	|__|__|__|	|__|__|:|__|__|	998	999
b. Creative activities led by ad adult, such as arts and crafts, dramatic pretend play, block building, or music activities?	|__|__|__|	|__|__|:|__|__|	998	999
c. Teacher-directed instruction, such as learning numbers or the alphabet?	|__|__|__|	|__|__|:|__|__|	998	999
d. Other teacher-directed group activities, such as storytelling or reading to children?	|__|__|__|	|__|__|:|__|__|	998	999
e. Activities chosen by the child?	|__|__|__|	|__|__|:|__|__|	998	999

F6 Thinking of children's time a little differently, I would like to ask about the time during a typical day that preschool children between the ages of 3 and 5 spend in large group activities, small group activities, and individual activities. What percentage of time do preschool children spend in ...

	PERCENT	HOURS:MINUTES	DON'T KNOW	REFUSED
a. Large group activities with 10 or more children?.....	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	998	999
b. Small group activities with 2 to 9 children?.........	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	998	999
c. Individual activities?........	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	998	999

F7 How much time or what percentage of the time do the preschool children between 3 and 5 years old spend watching educational television programs on a typical day?

¦___¦___¦___¦ PERCENT
OR
¦___¦___¦:¦___¦___¦ HOURS:MINUTES
VARIES A LOT................03
NO TELEVISION...(GO TO F9)..07
DON'T KNOW..................98
REFUSED.....................99

F8 And how much time or what percentage of the time do they watch other television programs on a typical day?

¦___¦___¦___¦ PERCENT
OR
¦___¦___¦:¦___¦___¦ HOURS:MINUTES
VARIES A LOT................03
DON'T KNOW..................98
REFUSED.....................99

F9 Next, I would like to ask you about parents' involvement in the activities of your program. Do the parents of children enrolled in your program **regularly...**

	YES	NO	DON'T KNOW	REFUSED
a. Serve as volunteers in the classroom?.........	01	00	98	99
b. Participate in the selection of staff?........	01	00	98	99
c. Review budgets?.............................	01	00	98	99
d. Participate in choosing activities and monitoring?..............................	01	00	98	99
e. Raise funds for the center?..................	01	00	98	99
f. Use the center for social activities?.........	01	00	98	99
g. Help with building maintenance?..............	01	00	98	99
h. Regularly drop in to check on children or the program?............................	01	00	98	99
i. Attend workshops or classes at the center?....	01	00	98	99

F10 Do teachers have regular meetings scheduled with the parents of each child to discuss their child's care and activities?

YES...........................01
YES, DURING DROP-OFF OR PICK-UP.....................02
YES, BUT NOT REGULARLY.........03
NO...........(SKIP TO F12)....00
DON'T KNOW....(SKIP TO F12)....98
REFUSED.......(SKIP TO F12)....99

F11 How often are meetings typically scheduled with parents?

¦___¦___¦ TIMES PER YEAR.......01
MONTH......02
WEEK.......03
DAY........04
DON'T KNOW.....................98
REFUSED........................99

F12 Do members of your staff visit each child's home to talk with parents about their child's care and activities?

YES............................01
NO...........(SKIP TO G1).....00
DON'T KNOW....(SKIP TO G1).....98
REFUSED.......(SKIP TO G1).....99

F13 How often do you typically visit each child's home?

¦___¦___¦ TIMES PER YEAR.......01
MONTH......02
WEEK.......03
DAY........04
DON'T KNOW.....................98
REFUSED........................99

G. MEALS

G1 Do you regularly prepare and serve meals or snacks to the children who attend your program?

YES..........................01
NO............(GO TO H1)......00
DON'T KNOW.....(GO TO H1)......98
REFUSED........(GO TO H1)......99

G2 Which meals do you serve?

	YES	NO	DON'T KNOW	REFUSED
a. Snacks?	01	00	98	99
b. Breakfast?	01	00	98	99
c. Lunch?	01	00	98	99
d. Dinner?	01	00	98	99

G3 Does your program participate in the Child Care Food Program?

YES..........................01
NO...........................00
DON'T KNOW...................98
REFUSED......................99

H. HEALTH AND SAFETY

H1 Next I would like to talk about your policies regarding the care of sick children.

Do you allow parents to leave children who...

	YES	NO	DON'T KNOW	REFUSED
a. have a feverish appearance?...........	01	00	98	99
b. have severe coughs?...................	01	00	98	99
c. have unusual spots or rashes?.........	01	00	98	99

H2 Do you have an area where sick children are isolated from the other children?

YES............................	01
NO.............................	00
DON'T KNOW.....................	98
REFUSED........................	99

H3 At the parent's or a physician's request, do you administer...

	YES	NO	DON'T KNOW	REFUSED
a. over-the-counter medications?.........	01	00	98	99
b. prescription medications?.............	01	00	98	99

H4 In case of an emergency, do you have the phone number of each child's doctor?

YES	01
SOME, NOT ALL	02
NO	03
DON'T KNOW	98
REFUSED	99

H5 Do you have a medical release for each child in case of emergencies?

YES	01
SOME, NOT ALL	02
NO	03
DON'T KNOW	98
REFUSED	99

H6 Do you have a list of persons to whom each child may be released?

YES	01
SOME, NOT ALL	02
NO	03
DON'T KNOW	98
REFUSED	99

H7 Have you had fire drills with the children currently enrolled in your program?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

H8 Does your center provide any of the following services to children or their families?

	YES	NO	DON'T KNOW	REFUSED
a. Physical examinations?....................	01	00	98	99
b. Dental examinations?......................	01	00	98	99
c. Hearing, speech, or vision testing?.......	01	00	98	99
d. Psychological testing?....................	01	00	98	99
e. Testing for cognitive development?........	01	00	98	99
f. Testing for social development?...........	01	00	98	99

I. OPERATING EXPERIENCES

I1 Next, I would like to ask you about some of your program's operational experiences.

(During the last two years/since your program began), has your program ever gone one month or longer without liability insurance?

YES	01
NO	00
NOT APPLICABLE...(GO TO I3)	97
DON'T KNOW	98
REFUSED	99

I2 (In the last two years/since your program began) have you had to increase tuition rates to pay higher liability insurance premiums?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

I3 Is your program required to be licensed by a child care licensing agency or accredited by the state Department of Education?

YES..........(SKIP TO I5)	01
NO	00
DON'T KNOW	98
REFUSED	99

I4 Is your program licensed or accredited (even though it is not required to be licensed)?

YES............................01
NO............(SKIP TO I7).....02
DON'T KNOW....(SKIP TO I7).....98
REFUSED.......(SKIP TO I7).....99

I5 Have you had difficulty meeting licensing or accreditation requirements?

YES............................01
NO.............................00
DON'T KNOW.....................98
REFUSED........................99

I6 How many times was your program inspected by federal, state or local licensing or accreditation authorities (during the last two years/since your program began)?

|___|___| TIMES
DON'T KNOW.....................98
REFUSED........................99

I7 The next questions are about salaries and income. What percentage of your total budget is spent on salaries and fringe benefits?

WORKSHEET QUESTION 6.

PROBE: Your best estimate is fine.

|___|___|___| PERCENT SPENT ON SALARIES AND FRINGE BENEFITS
DON'T KNOW....................998
REFUSED.......................999

I8 During your last fiscal year, did your program lose money, break even, or make a profit?

LOST MONEY....................01
BROKE EVEN....................00
MADE A PROFIT.................03
DON'T KNOW....................98
REFUSED.......................99

I9 During the last fiscal year, approximately what percentage of your program's budget was met with funds from the following sources?

WORKSHEET QUESTION 7.

	PERCENT	DON'T KNOW	REFUSED
a. Parent fees?........................	¦__¦__¦__¦	998	999
b. Government agencies?................	¦__¦__¦__¦	998	999
c. Community organizations such as the United Way, local charities, or other service organizations?......	¦__¦__¦__¦	998	999
d. Religious organizations?............	¦__¦__¦__¦	998	999
e. Cash donations or fund raising?	¦__¦__¦__¦	998	999
f. From any other sources? (SPECIFY)...	¦__¦__¦__¦	998	999

____

I10 Do you receive in-kind donations such as rent, equipment, supplies, food, toys or insurance coverage?

YES...........................01
NO............(GO TO I12).....00
DON'T KNOW.....(GO TO I12).....98
REFUSED........(GO TO I12).....99

I11 What were those donations?

PROBE: Any others?

RENT	01
EQUIPMENT	02
SUPPLIES	03
FOOD	04
TOYS	05
INSURANCE COVERAGE	06
OTHER (SPECIFY)	96

____

____

NO OTHERS	95
DON'T KNOW	98
REFUSED	99

I12 INTERVIEWER: That's all the questions I have. Thank you for your time. We appreciate your cooperation.

APPENDIX D

SURVEY INSTRUMENT: REGULATED HOME-BASED PROGRAMS

FAMILY PROVIDER - INTRODUCTION AND SCREENER

INTRODUCTION

IN1 Hello, my name is (INTERVIEWER'S NAME) from Mathematica Policy Research in Princeton, New Jersey. May I speak to (NAME FROM LABEL).

AVAILABLE......(GO TO IN4)......01

NOT AVAILABLE..................00

IN2 When would be a good time to try and talk to (him/her)? RECORD DATE AND TIME ON CONTACT SHEET.

IN3 Please tell (NAME) that I will call at (TIME) about a study Mathematica is conducting for the U.S. Department of Education. Thank you.

*** * * SKIP TO CALLBACK * * ***

IN4 (Hello, my name is (INTERVIEWER'S NAME) from Mathematica Policy Research in Princeton, New Jersey.) I am calling about a study of child care providers we are conducting for the U.S. Department of Education. We sent you a letter on (DATE) describing the study.

IN5 Did you receive the letter?

YES......(GO TO IN7)......01

NO......................00

IN6 The letter explained that this is a study of day care centers and family day care providers. In order to draw a picture of the child care that is available in this country, we will be asking about the child care you provide. The letter also explained that your responses will be kept confidential and participation is voluntary. The interview will take about 30 minutes. Shall we begin?

YES......(GO TO S1).......01

NO.......(GO TO IN8)......00

IN7 The interview will only take about 30 minutes and the questions are very easy to answer. Shall we begin the interview?

YES......(GO TO S1).......01
NO........................00
DON'T KNOW................98
REFUSED...................99

IN8 Is there a better date and time to call back to complete the interview?

YES.......................01
NO, REFUSAL...
.......(GO TO IN10).......00
DON'T KNOW................98

IN9 INTERVIEWER: RECORD DATE AND TIME AND SKIP TO CALLBACK.

IN10 Why do you not wish to participate in the study?

NOT ENOUGH TIME...........01
NOT INTERESTED............02
TOO BUSY..................03
OTHER (SPECIFY)...........96

____

____

DON'T KNOW................98
REFUSED...................99

IN11 SKIP TO CALLBACK.

SCREENER

S1 Are you still licensed to provide child care or registered or certified as a child care provider?

YES.........(GO TO S4)....01
NO........................00
DON'T KNOW..(GO TO S4)....98
REFUSED.....(GO TO S4)....99

S2 Why is that?

NO LONGER PROVIDE CHILD CARE........(GO TO S6).......01
COULD NOT MEET LICENSING OR REGISTRATION REQUIREMENTS..02
TAKE CARE OF FEWER THAN NUMBER OF CHILDREN FOR WHICH LICENSE IS REQUIRED......................03
OTHER (SPECIFY)...96

____

DON'T KNOW..98
REFUSED...99

S3 END OF INTERVIEW. Thank you for your cooperation, but these are all the questions I have. We are only interviewing people who are currently licensed to provide child care.

S4 Do you currently care for children other than your own children or children who live with you who are...

	YES	NO	DON'T KNOW	REFUSED
a. Infants and toddlers under 3 years of age?	01	00	98	99
b. Preschoolers 3 years old and above who have not yet entered kindergarten or regular school?......................	01	00	98	99
c. School-aged children, before or after kindergarten or regular school?..........	01	00	98	99

S5 INTERVIEWER: DOES S4a AND S4b AND S4c EQUAL "00"?

YES......................01
NO.......(GO TO A1).......00

S6 Why do you no longer provide child care?

GOT OTHER JOB...01
DID NOT MAKE ENOUGH MONEY...........................02
LOST LICENSE..03
PROBLEMS WITH CHILDREN'S PARENTS.....................04
COULDN'T GET LIABILITY INSURANCE OR RATES WENT UP....05
ILLNESS...06
COULDN'T GET CHILDREN TO CARE FOR....................07
DIDN'T LIKE IT..08
OTHER (SPECIFY)......................................96

DON'T KNOW...98
REFUSED..99

S7 END OF INTERVIEW. Thank you for your cooperation, but those are all the questions I have. We are only interviewing people who currently provide child care.

FAMILY DAY CARE PROVIDER

QUESTIONNAIRE

A. CARE PROVIDED

A1 How long have you been caring for children in your home other than your own children or children who live with you?

a. ¦___¦___¦ YEARS AND ¦___¦___¦ MONTHS

OR

b. SINCE ¦___¦___¦ MONTH, 19 ¦___¦___¦

DON'T KNOW..........................98

REFUSED.............................99

A2 What is the **major** reason you provide child care for other children?

WANT TO STAY HOME WITH OWN CHILDREN.........01

RELATIVES OR FRIENDS NEED CARE SO THEY CAN WORK..........................02

LIKE CHILDREN...............................03

THERE IS A NEED FOR GOOD CHILD CARE FOR WORKING MOTHERS...........04

THE MONEY...................................05

OTHER (SPECIFY).............................96

____

DON'T KNOW..................................98

REFUSED.....................................99

A3 The following statements describe some of the goals child care providers try to achieve with the children they care for. Please tell me which of these goals describe your objectives. After I have asked you about these statements, I will ask you which one is your **most** important goal. Is one of your goals...

	YES	NO	DON'T KNOW	REFUSED
a. to provide a warm and loving environment for children?...........	01	02	98	99
b. to provide care for children so parents can work?..................	01	02	98	99
c. to prepare children for school?.....	01	02	98	99
d. to provide compensatory education for disadvantaged children?.........	01	02	98	99
e. to promote children's development?..	01	02	98	99
f. to teach children appreciation for their culture?..................	01	02	98	99
g. to provide religious instruction?...	01	02	98	99

A4 IF RESPONDENT ANSWERS "YES" TO MORE THAN ONE GOAL AT A3, ASK: Which of these goals is your **most** important goal?

PROVIDING WARM, LOVING ENVIRONMENT.............	01
TO PROVIDE CARE SO PARENTS CAN WORK............	02
PREPARING CHILDREN FOR SCHOOL..................	03
PROVIDING COMPENSATORY EDUCATION FOR DISADVANTAGED CHILDREN.........................	04
PROMOTING CHILD DEVELOPMENT...................	05
TEACHING APPRECIATION FOR CULTURE..............	06
PROVIDING RELIGIOUS INSTRUCTION................	07
DON'T KNOW....................................	98
REFUSED.......................................	99

A5 How many children other than your own children or children who live with you do you take care of on a regular basis each week?

PROBE: By regular basis I mean on a schedule that is similar from week to week.

|___|___| CHILDREN

DON'T KNOW..(GO TO A19)...98

REFUSED.....(GO TO A19)...99

NONE........(GO TO A19)...00

A6 Next, I have a few questions about [the child/each of the (NUMBER FROM A5) children] you take care of on a regular basis. First, I would like the age, first name, and sex of all the children you take care of. (Let's start with the youngest.)

ASK A7 THROUGH A9 FOR EACH CHILD, THEN ASK A10 THROUGH A17 FOR EACH CHILD.

INTERVIEWER: IF PROVIDER CARES FOR MORE THAN 10 CHILDREN, CATI WILL RANDOMLY SELECT 10 CHILDREN FOR QUESTIONS A10 THROUGH A17.

	a. CHILD 1	b. CHILD 2	c. CHILD 3	d. CHILD 4	e. CHILD 5
A7 How old is the (youngest/next youngest) child you take care of regularly?	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS
A8 What is that child's first name?	____________	____________	____________	____________	____________
A9 INTERVIEWER: ASK IF NOT OBVIOUS. Is (CHILD) a girl or a boy?	GIRL...............01 BOY................02	GIRL...............01 BOY................02	GIRL...............01 BOY................02	GIRL...............01 BOY................02	GIRL...............01 BOY................02
A10 Which days did you care for (CHILD) last week?	MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00
A11 How many hours did you care for (CHILD) last week?	¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS
A12 IF CHILD IS 5 OR OLDER, ASK: Did you care for (CHILD) before school, after school, or both before and after school?	BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07
A13 (Is [CHILD]/Are any of these children) related to you?	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02
A14 How is (CHILD) related to you?	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ____________	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ____________	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ____________	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ____________	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ____________
A15 How long have you been caring for (CHILD) on a regular basis?	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦
A16 How much do you charge to care for (CHILD)?	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ________ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ________ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ________ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ________ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99
A17 INTERVIEWER: IS THERE ANOTHER CHILD?	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00

	f. CHILD 6	g. CHILD 7	h. CHILD 8	i. CHILD 9	j. CHILD 10
A7 How old is the (youngest/next youngest) child you take care of regularly?	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS	¦__¦__¦ YEARS ¦__¦__¦ MONTHS
A8 What is that child's first name?	______	______	______	______	______
A9 INTERVIEWER: ASK IF NOT OBVIOUS. Is (CHILD) a girl or a boy?	GIRL...............01 BOY................02	GIRL...............01 BOY................02	GIRL...............01 BOY................02	GIRL...............01 BOY................02	GIRL...............01 BOY................02
A10 Which days did you care for (CHILD) last week?	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00	SAME...........95 MON................01 TUES...............02 WED................03 THUR...............04 FRI................05 SAT................06 SUN................07 MON-FRI............08 NO OTHER DAYS......00
A11 How many hours did you care for (CHILD) last week?	SAME...............95 ¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS	SAME...............95 ¦__¦__¦ HOURS
A12 IF CHILD IS 5 OR OLDER, ASK: Did you care for (CHILD) before school, after school, or both before and after school?	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07	SAME...............95 BEFORE.............01 AFTER..............02 BOTH...............03 NOT IN SCHOOL......07
A13 (Is [CHILD]/Are any of these children) related to you?	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02	YES................01 NO...(GO TO A15)...02
A14 How is (CHILD) related to you?	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ______	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ______	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ______	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ______	GRANDCHILD.........01 NEPHEW/NIECE.......02 COUSIN.............03 BROTHER/SISTER.....04 OTHER (SPECIFY)....96 ______
A15 How long have you been caring for (CHILD) on a regular basis?	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦	¦__¦__¦__¦ MONTHS.............01 YEARS..............02 WEEKS..............03 DAYS...............04 OR SINCE MONTH ¦__¦__¦ 19 ¦__¦__¦
A16 How much do you charge to care for (CHILD)?	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ______ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ______ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ______ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ______ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99	NO CHARGE..........00 $ ¦__¦__¦__¦.¦__¦__¦ INCLUDED WITH CHILD # ______ MONTH..............01 WEEK...............02 DAY................03 HOUR...............04 REFUSED............99
A17 INTERVIEWER: IS THERE ANOTHER CHILD?	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00	YES...(GO TO A10, NEXT CHILD...01 NO...(GO TO A18)...00

A18 [Is the child you care for/How many of the (NUMBER FROM A5) children you care for are]...

	NUMBER	DON'T KNOW	REFUSED
a. White, non-Hispanic?............	¦___¦___¦	98	99
b. Black, not Hispanic?............	¦___¦___¦	98	99
c. Hispanic?......................	¦___¦___¦	98	99
d. Asian or Pacific Islander?.......	¦___¦___¦	98	99
e. American Indian or Alaskan native?.......................	¦___¦___¦	98	99
f. Of other ethnic groups?..........	¦___¦___¦	98	99

A19 How many more children younger than school age would you be able and willing to take care of **full-time**?

PROBE: By full-time, we mean 35 hours a week or more.

¦___¦___¦ CHILDREN

NOT SURE OR DEPENDS.........96

DON'T KNOW..................98

REFUSED.....................99

A20 [In addition to the (NUMBER FROM A19) additional children you could take care of full-time,] how many more children younger than school age would you be able and willing to take care of **part-time**?

PROBE: For less than 35 hours a week.

¦___¦___¦ CHILDREN

NONE........(GO TO A22).....00

NOT SURE OR DEPENDS.........96

DON'T KNOW..(GO TO A22).....98

REFUSED.....(GO TO A22).....99

A21 Would you take care of more part-time children in the....

	YES	NO	DON'T KNOW OR NOT SURE	REFUSED
a. morning?	01	00	98	99
b. In the afternoon?	01	00	98	99
c. In the evening?	01	00	98	99
d. Overnight?	01	00	98	99

A22 During January through March of this year, how many children did you stop caring for?

|___|___| CHILDREN
DON'T KNOW..................98
REFUSED.....................99

A23 During January through March of this year, how many new children did you start taking care of?

|___|___| CHILDREN
DON'T KNOW..................98
REFUSED.....................99

A24 Is there a child care resource and referral network in your community?

YES.........................01
NO...........(GO TO A26)....00
DON'T KNOW...(GO TO A26)....98
REFUSED......(GO TO A26)....99

A25 Are you listed with a resource and referral agency?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

A26 Are you a member of a family care organization such as the Family Day Care Professional Association or the National Association for the Education of Young Children (NAEYC)?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

A27 Are you sponsored by a group that organizes family day care in your area?

YES	01
NO	00
DON'T KNOW	98
REFUSED	99

A28 Do you meet on a regular basis with other family day care providers for training or as part of a support network?

YES	01
YES, BUT NOT REGULARLY	02
NO	00
DON'T KNOW	98
REFUSED	99

A29 When you have vacancies, what steps do you take to try to find more children to care for?

PROBE: Any other steps?

CODE ALL THAT APPLY

TRY TO GET REFERRALS FROM FRIENDS, NEIGHBORS, OR RELATIVES	01
TRY TO GET REFERRALS FROM WELFARE OR SOCIAL SERVICE CASEWORKERS	02
NEWSPAPERS, YELLOW PAGES, OR OTHER ADVERTISEMENT	03
TRY TO GET REFERRALS FROM COMMUNITY AGENCIES OTHER THAN WELFARE OR SOCIAL SERVICE	04
TALK TO FRIENDS OR OTHER FAMILIES WITH CHILDREN	05
PARENTS OF CHILDREN IN CARE	06
BULLETIN OR MESSAGE BOARDS	07
CHECK WITH DAY CARE CENTERS OR PRESCHOOLS	08
GET REFERRALS FROM RESOURCE AND REFERRAL AGENCY	09
WORD OF MOUTH	10
WAITING LIST	11
PAMPHLETS OR FLYERS	12
NONE OR TAKE NO STEPS	13
OTHER (SPECIFY)	96
______________________________	
NO OTHER STEPS	00
DON'T KNOW	98
REFUSED	99

A30 The last time you had an opening, how long did it take you to find another child to care for?

|__|__|	DAYS	01
	WEEKS	02
	MONTHS	03
STILL HAVE OPENING/ COULDN'T FIND ANOTHER CHILD		97
DON'T KNOW		98
REFUSED		99

A31 Do you care for children whose first language is not English and do not speak English well enough to be understood?

YES........................01
NO.........................00
NOT NOW, BUT WOULD..........02
ONLY CARE FOR INFANTS.......03
DON'T KNOW..................98
REFUSED.....................99

A32 Do you care for children who have special needs or diagnosed handicaps?

PROBE: Special needs such as physical impairments, severe emotional disturbance, mental retardation, or developmental delays which are associated with physical or cognitive impairments.

YES........................01
NO............(GO TO A34)...00
NOT NOW, BUT
  WOULD.......(GO TO A34)...97
DON'T KNOW....(GO TO A34)...98
REFUSED.......(GO TO A34)...99

A33 How many children with special needs or diagnosed handicaps do you currently care for?

¦___¦___¦ SPECIAL NEEDS CHILDREN

NONE NOW, HAD IN PAST.......97
DON'T KNOW..................98
REFUSED.....................99

A34 Do you accept children who are not toilet trained?

YES.........................01
NO..........................00
DEPENDS, OCCASIONAL
ACCIDENTS ARE OK..........07
DON'T KNOW..................98
REFUSED.....................99

A35 What is the earliest time that parents can drop off their child(ren)?

|___|___|:|___|___| AM......01
PM......02
DON'T KNOW..................98
REFUSED.....................99
OPEN 24 HOURS PER DAY...
...(GO TO A37)....97

A36 How late can parents pick up their child(ren)?

|___|___|:|___|___| AM......01
PM......02
DON'T KNOW..................98
REFUSED.....................99

A37 Altogether, how many weeks during the year do you **not** provide child care?

|___|___| WEEKS
OPEN ALL YEAR....(GO TO SECTION B1)....00
DON'T KNOW.............................98
REFUSED................................99

A38 When during the year are you closed?

PROBE: Are there any other times when you are closed?

CODE ALL THAT APPLY

DURING THE SUMMER..........................01
HOLIDAYS...................................02
OTHER (SPECIFY)............................96

____

____

NO OTHER TIMES.............................00
DON'T KNOW.................................98
REFUSED....................................99

A39 INTERVIEWER: DOES PROVIDER CARE FOR PRESCHOOL CHILDREN AGE 3 AND ABOVE? DOES S4b EQUAL "01"?

YES........................01
NO.......(GO TO B4)........00

B. CHILDREN'S ACTIVITIES

B1 Next, I would like to ask you about the activities of the children you care for.

What percentage of the time during a typical day do preschool children between the ages of 3 and 5 usually spend in the following types of activities? I will be asking about physical activities, creative activities, instructional activities, other group activities, and free choice activities.

	PERCENT	HOURS:MINUTES	DON'T KNOW	REFUSED
What percentage of time is spent in...				
a. Physical activities such as running, climbing, balancing or crawling?.........................	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	98	99
b. Creative activities such as arts and crafts, dramatic pretend play, block building, or music activities?......................	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	98	99
c. Instruction by you or a helper, such as learning numbers or the alphabet?....................	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	98	99
d. Other group activities led by you or a helper, such as storytelling or reading to children?.....	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	98	99
e. Activities chosen by the child?.....	¦__¦__¦__¦	¦__¦__¦:¦__¦__¦	98	99

B2 Weather-permitting, do children play both indoors and outdoors every day?

YES........................	01
SOMETIMES, BUT NOT EVERY DAY................	02
NO..........................	00
DON'T KNOW..................	98
REFUSED.....................	99

B3A What percentage of the time do the preschool children between 3 and 5 years old spend watching educational television programs each day?

¦___¦___¦___¦ PERCENT

OR

¦___¦___¦:¦___¦___¦ HOURS:MINUTES

NONE........................00
NO TELEVISION..(GO TO B4)...03
VARIES A LOT................07
DON'T KNOW..................98
REFUSED.....................99

B3B And what percentage of the time do they watch other television programs?

¦___¦___¦___¦ PERCENT

OR

¦___¦___¦:¦___¦___¦ HOURS:MINUTES

NONE........................00
VARIES A LOT................07
DON'T KNOW..................98
REFUSED.....................99

B4 (Next, I would like to ask you about the activities of the children you care for.)

Do you plan the daily activities of the children you care for?

YES.........................01
NO...........(GO TO B7)....02
DON'T KNOW....(GO TO B7)....98
REFUSED.......(GO TO B7)....99

B5 When do you plan the activities of the children you care for?

WHILE CARING FOR CHILDREN...01

EVENINGS OR WEEKENDS........02

DON'T MAKE SPECIFIC PLANS......(GO TO B7).....03

DON'T KNOW..................98

REFUSED.....................99

B6 How much time do you spend each week planning children's activities?

¦___¦___¦ HOURS OR ¦___¦___¦ MINUTES

DON'T KNOW..................98

REFUSED.....................99

B7 Do you have regular meetings scheduled with parents to discuss their child's care and activities?

YES.........................01

YES, DURING DROP-OFF OR PICK-UP...................02

YES, BUT NOT REGULARLY......03

NO..........(GO TO B9).....00

DON'T KNOW...(GO TO B9).....98

REFUSED......(GO TO B9).....99

B8 How often are meetings typically scheduled with parents?

¦___¦___¦TIMES PER YEAR.....01
MONTH....02
WEEK.....03

DON'T KNOW..................98

REFUSED.....................99

B9 Do you visit each child's home to talk with parents about their child's care and activities?

PROBE: Include only regular visits to discuss children's care and activities. Do not include social visits if you are also a relative or family friend.

YES........................01
NO...........(GO TO C1)....00
DON'T KNOW....(GO TO C1)....98
REFUSED.......(GO TO C1)....99

B10 How often do you typically visit each child's home?

|__|__| TIMES PER YEAR......01
MONTH.....02
WEEK......03
DON'T KNOW..................98
REFUSED.....................99

C. COSTS AND INCOME

C1 Next, I would like to talk about the fees you charge for child care.

INTERVIEWER: CHECK A16 FOR ALL CHILDREN.
DOES PROVIDER CHARGE FOR CHILD CARE?

YES........................01
NO.......(GO TO C10).......00

C2 Do you sometimes charge different amounts depending on...

	YES	NO	DO NOT ACCEPT	DON'T KNOW	REFUSED
a. The number of children from the same family?	01	00	XX	98	99
b. Family income?	01	00	XX	98	99
c. Your relationship with a child's family; if they are family, friends, or strangers?	01	00	XX	98	99
d. The number of hours per week that you care for a child?	01	00	XX	98	99
e. The child's age?	01	00	XX	98	99
f. Whether a child is toilet trained?	01	00	97	98	99
g. Whether a child has a diagnosed handicap?	01	00	97	98	99
h. Whether parents or an outside agency such as welfare or an employment or training program is paying for the care?	01	00	97	98	99
i. Whether or not you provide special services?	01	00	97	98	99

If C2i = 01 (YES) ASK:

For which of the following services do you charge different amounts?

	YES	NO	DO NOT ACCEPT	DON'T KNOW	REFUSED
i1. Meals	01	00	XX	98	99
i2. Transportation	01	00	XX	98	99
i3. Diapers	01	00	XX	98	99
i4. Others (SPECIFY)	01	00	XX	98	99

j. Are there any other reasons why you charge different amounts for child care? (SPECIFY)........................01 00 XX 98 99

____

____

C3 INTERVIEWER: DO FEES VARY ACCORDING TO FAMILY INCOME? DOES C2b = "YES" OR "01"?

YES........................01
NO........(GO TO C5)........00

C4 What is the typical fee you charge for a child from a low-income family?

PROBE: If you cared for a child from a low-income family, how much would you charge?

$ |___|___|___|___|.|___|___| PER HOUR...01
DAY........02
WEEK.......03
MONTH......04
YEAR.......05
NO CARE FOR LOW-INCOME CHILDREN.........997
DON'T KNOW..............................998
REFUSED.................................999

C5 Does a federal, state, or local agency such as welfare or an employment or training program pay all or part of the fees for any of the children you care for?

YES........................01
NO...........(GO TO C11)...00
DON'T KNOW....(GO TO C11)...98
REFUSED.......(GO TO C11)...99

C6 How many of the children you care for are paid for in this way?

|___|___| CHILDREN
DON'T KNOW..................98
REFUSED.....................99

C7 Does the agency pay you directly for slots, pay you for vouchers or certificates received from parents, or does it pay the child's parent in cash?

CODE ALL THAT APPLY

PAYS PROVIDER DIRECTLY FOR SLOT..................01
PAYS PROVIDER FOR VOUCHERS....(GO TO C9)......02
PAYS PARENT IN CASH.........03
DON'T KNOW..................98
REFUSED.....................99

C8 Do any parents pay you with child care vouchers?

PROBE: Vouchers are certificates that parents may receive from a social service agency and use to pay for their child's care. The provider can then turn them in for cash payment.

YES........................01
NO.........................00
DON'T KNOW..................98
REFUSED.....................99

C9 Does the agency pay the full fee or a partial fee for a child's care?

FULL.......................01
PARTIAL....................02
VARIES PER CHILD...........03
DON'T KNOW..................98
REFUSED.....................99

C10 INTERVIEWER: DO PUBLIC AGENCIES PAY FOR ANY OF THE CHILDREN?
DOES C5 EQUAL "01"?

YES.......(GO TO C12).......01
NO..........................00

C11 Would you accept children whose fees are paid by a public agency?

YES.........................01
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

C12 Do the parents of any children you care for receive welfare or other public assistance such as food stamps, SSI or WIC benefits?

YES.........................01
NO...........(GO TO C14)...00
DON'T KNOW....(GO TO C14)...98
REFUSED.......(GO TO C14)...99

C13 How many of the children you care for have parents who receive public assistance?

¦___¦___¦ CHILDREN
DON'T KNOW..................98
REFUSED.....................99

C14 The next questions are about meals children eat while in your care.

Do you sometimes prepare and serve some meals or snacks, or do parents send **all** meals and snacks for their children?

PARENTS SEND ALL
  MEALS......(GO TO D1).....01
RESPONDENT SOMETIMES
  PREPARES OR SERVES........02
DON'T KNOW...(GO TO D1).....98
REFUSED......(GO TO D1).....99

C15 Do you prepare and serve...

	YES	NO	DON'T KNOW	REFUSED
a. Snacks?......................	01	00	98	99
b. Breakfast?....................	01	00	98	99
c. Lunch?........................	01	00	98	99
d. Dinner?.......................	01	00	98	99

C16 Do you currently participate in the Child Care Food Program?

PROBE: The Child Care Food Program is a federal program that reimburses some day care providers for meals they serve to children they care for.

YES.........................01
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

D. HELP WITH CHILD CARE

D1 Family day care providers often need business partners or helpers to assist with child care. These helpers may be paid money, paid in a noncash arrangement or not paid, but asked to help as a family obligation.

Altogether, how many people help you take care of the children during a typical week? Include business partners, people you pay, people who help you in exchange for services such as meals, and family members who help you.

¦___¦___¦ NUMBER OF HELPERS

NONE..........(GO TO E1)....00

DON'T KNOW....(GO TO E1)....98

REFUSED.......(GO TO E1)....99

D2 I have a few questions about (each of) (the person/the (NUMBER FROM D1) people) who help you take care of the children. IF MORE THAN 6 HELPERS, USE CONTINUATION SHEET.

		FIRST HELPER	SECOND HELPER	THIRD HELPER	FOURTH HELPER	FIFTH HELPER	SIXTH HELPER
D3	Is the (ORDINAL) person who helps you a relative, friend, or other person you hired?	RELATIVE................01 FRIEND.....(GO TO D5)..02 OTHER......(GO TO D5)..03 DON'T KNOW.(GO TO D5)..04 REFUSED....(GO TO D5)..05	RELATIVE................01 FRIEND.....(GO TO D5)..02 OTHER......(GO TO D5)..03 DON'T KNOW.(GO TO D5)..04 REFUSED....(GO TO D5)..05	RELATIVE................01 FRIEND.....(GO TO D5)..02 OTHER......(GO TO D5)..03 DON'T KNOW.(GO TO D5)..04 REFUSED....(GO TO D5)..05	RELATIVE................01 FRIEND.....(GO TO D5)..02 OTHER......(GO TO D5)..03 DON'T KNOW.(GO TO D5)..04 REFUSED....(GO TO D5)..05	RELATIVE................01 FRIEND.....(GO TO D5)..02 OTHER......(GO TO D5)..03 DON'T KNOW.(GO TO D5)..04 REFUSED....(GO TO D5)..05	RELATIVE................01 FRIEND.....(GO TO D5)..02 OTHER......(GO TO D5)..03 DON'T KNOW.(GO TO D5)..04 REFUSED....(GO TO D5)..05
D4	How is this person related to you?	SPOUSE...(GO TO D6)....01 PARENT...(GO TO D6)....02 CHILD...................03 OTHER (SPECIFY) ____ ____________________..96 DON'T KNOW..............98 REFUSED.................99	SPOUSE...(GO TO D6)....01 PARENT...(GO TO D6)....02 CHILD...................03 OTHER (SPECIFY) ____ ____________________..96 DON'T KNOW..............98 REFUSED.................99	SPOUSE...(GO TO D6)....01 PARENT...(GO TO D6)....02 CHILD...................03 OTHER (SPECIFY) ____ ____________________..96 DON'T KNOW..............98 REFUSED.................99	SPOUSE...(GO TO D6)....01 PARENT...(GO TO D6)....02 CHILD...................03 OTHER (SPECIFY) ____ ____________________..96 DON'T KNOW..............98 REFUSED.................99	SPOUSE...(GO TO D6)....01 PARENT...(GO TO D6)....02 CHILD...................03 OTHER (SPECIFY) ____ ____________________..96 DON'T KNOW..............98 REFUSED.................99	SPOUSE...(GO TO D6)....01 PARENT...(GO TO D6)....02 CHILD...................03 OTHER (SPECIFY) ____ ____________________..96 DON'T KNOW..............98 REFUSED.................99
D5	What is this person's age?	¦__¦__¦ YEARS DON'T KNOW..............98 REFUSED.................99	¦__¦__¦ YEARS DON'T KNOW..............98 REFUSED.................99	¦__¦__¦ YEARS DON'T KNOW..............98 REFUSED.................99	¦__¦__¦ YEARS DON'T KNOW..............98 REFUSED.................99	¦__¦__¦ YEARS DON'T KNOW..............98 REFUSED.................99	¦__¦__¦ YEARS DON'T KNOW..............98 REFUSED.................99
D6	What kind of help do you get from (him/her)? PROBE: Any other kind of help?	**CODE ALL THAT APPLY** CHILD CARE..............01 COOKING.................02 CLEANING................03 TRANSPORTATION..........04 HELP WITH FINANCIAL RECORDS.................05 OTHER (SPECIFY)_____ ____________________..96 NO OTHER................00 DON'T KNOW..............98 REFUSED.................99	**CODE ALL THAT APPLY** CHILD CARE..............01 COOKING.................02 CLEANING................03 TRANSPORTATION..........04 HELP WITH FINANCIAL RECORDS.................05 OTHER (SPECIFY)_____ ____________________..96 NO OTHER................00 DON'T KNOW..............98 REFUSED.................99	**CODE ALL THAT APPLY** CHILD CARE..............01 COOKING.................02 CLEANING................03 TRANSPORTATION..........04 HELP WITH FINANCIAL RECORDS.................05 OTHER (SPECIFY)_____ ____________________..96 NO OTHER................00 DON'T KNOW..............98 REFUSED.................99	**CODE ALL THAT APPLY** CHILD CARE..............01 COOKING.................02 CLEANING................03 TRANSPORTATION..........04 HELP WITH FINANCIAL RECORDS.................05 OTHER (SPECIFY)_____ ____________________..96 NO OTHER................00 DON'T KNOW..............98 REFUSED.................99	**CODE ALL THAT APPLY** CHILD CARE..............01 COOKING.................02 CLEANING................03 TRANSPORTATION..........04 HELP WITH FINANCIAL RECORDS.................05 OTHER (SPECIFY)_____ ____________________..96 NO OTHER................00 DON'T KNOW..............98 REFUSED.................99	**CODE ALL THAT APPLY** CHILD CARE..............01 COOKING.................02 CLEANING................03 TRANSPORTATION..........04 HELP WITH FINANCIAL RECORDS.................05 OTHER (SPECIFY)_____ ____________________..96 NO OTHER................00 DON'T KNOW..............98 REFUSED.................99
D7	How many hours per week does (he/she) usually help you	¦__¦__¦ HOURS ¦__¦__¦ MINUTES DON'T KNOW............98 REFUSED...............99	¦__¦__¦ HOURS ¦__¦__¦ MINUTES DON'T KNOW............98 REFUSED...............99	¦__¦__¦ HOURS ¦__¦__¦ MINUTES DON'T KNOW............98 REFUSED...............99	¦__¦__¦ HOURS ¦__¦__¦ MINUTES DON'T KNOW............98 REFUSED...............99	¦__¦__¦ HOURS ¦__¦__¦ MINUTES DON'T KNOW............98 REFUSED...............99	¦__¦__¦ HOURS ¦__¦__¦ MINUTES DON'T KNOW............98 REFUSED...............99
D8	How many weeks per year?	¦__¦__¦ WEEKS PER YEAR DON'T KNOW............98 REFUSED...............99	¦__¦__¦ WEEKS PER YEAR DON'T KNOW............98 REFUSED...............99	¦__¦__¦ WEEKS PER YEAR DON'T KNOW............98 REFUSED...............99	¦__¦__¦ WEEKS PER YEAR DON'T KNOW............98 REFUSED...............99	¦__¦__¦ WEEKS PER YEAR DON'T KNOW............98 REFUSED...............99	¦__¦__¦ WEEKS PER YEAR DON'T KNOW............98 REFUSED...............99

		FIRST HELPER	SECOND HELPER	THIRD HELPER	FOURTH HELPER	FIFTH HELPER	SIXTH HELPER
D9	INTERVIEWER: IS HELPER THE SPOUSE, DOES D4 = 01?	YES...(GO TO D13).....01 NO....................00	YES...(GO TO D13).....01 NO....................00	YES...(GO TO D13).....01 NO....................00	YES...(GO TO D13).....01 NO....................00	YES...(GO TO D13).....01 NO....................00	YES...(GO TO D13).....01 NO....................00
D10	Do you pay this person cash, have a noncash arrangement such as providing meals, transportation or exchanging services, or do you not pay this person at all? PROBE: Do not count meals given to your children as payment.	CASH..................01 NONCASH......(GO TO D12)....02 NO PAYMENT...(GO TO D13)....03 DON'T KNOW...(GO TO D13)....98 REFUSED......(GO TO D13)....99	CASH..................01 NONCASH......(GO TO D12)....02 NO PAYMENT...(GO TO D13)....03 DON'T KNOW...(GO TO D13)....98 REFUSED......(GO TO D13)....99	CASH..................01 NONCASH......(GO TO D12)....02 NO PAYMENT...(GO TO D13)....03 DON'T KNOW...(GO TO D13)....98 REFUSED......(GO TO D13)....99	CASH..................01 NONCASH......(GO TO D12)....02 NO PAYMENT...(GO TO D13)....03 DON'T KNOW...(GO TO D13)....98 REFUSED......(GO TO D13)....99	CASH..................01 NONCASH......(GO TO D12)....02 NO PAYMENT...(GO TO D13)....03 DON'T KNOW...(GO TO D13)....98 REFUSED......(GO TO D13)....99	CASH..................01 NONCASH......(GO TO D12)....02 NO PAYMENT...(GO TO D13)....03 DON'T KNOW...(GO TO D13)....98 REFUSED......(GO TO D13)....99
D11	How much do you pay this person per week? PROBE FOR AVERAGE OR USUAL AMOUNT.	$ ¦___¦___¦___¦ DON'T KNOW............998 REFUSED...............999 * * * GO TO D13 * * *	$ ¦___¦___¦___¦ DON'T KNOW............998 REFUSED...............999 * * * GO TO D13 * * *	$ ¦___¦___¦___¦ DON'T KNOW............998 REFUSED...............999 * * * GO TO D13 * * *	$ ¦___¦___¦___¦ DON'T KNOW............998 REFUSED...............999 * * * GO TO D13 * * *	$ ¦___¦___¦___¦ DON'T KNOW............998 REFUSED...............999 * * * GO TO D13 * * *	$ ¦___¦___¦___¦ DON'T KNOW............998 REFUSED...............999 * * * GO TO D13 * * *
D12	Which of the following do you provide in exchange for help?	CODE ALL THAT APPLY a. Meals?............01 b. Room?............02 c. Transportation?...03 d. Child care?.......04 e. Other? (SPECIFY) ______________..96 f. NO OTHERS.........00 DON'T KNOW........98 REFUSED...........99	CODE ALL THAT APPLY a. Meals?............01 b. Room?............02 c. Transportation?...03 d. Child care?.......04 e. Other? (SPECIFY) ______________..96 f. NO OTHERS.........00 DON'T KNOW........98 REFUSED...........99	CODE ALL THAT APPLY a. Meals?............01 b. Room?............02 c. Transportation?...03 d. Child care?.......04 e. Other? (SPECIFY) ______________..96 f. NO OTHERS.........00 DON'T KNOW........98 REFUSED...........99	CODE ALL THAT APPLY a. Meals?............01 b. Room?............02 c. Transportation?...03 d. Child care?.......04 e. Other? (SPECIFY) ______________..96 f. NO OTHERS.........00 DON'T KNOW........98 REFUSED...........99	CODE ALL THAT APPLY a. Meals?............01 b. Room?............02 c. Transportation?...03 d. Child care?.......04 e. Other? (SPECIFY) ______________..96 f. NO OTHERS.........00 DON'T KNOW........98 REFUSED...........99	CODE ALL THAT APPLY a. Meals?............01 b. Room?............02 c. Transportation?...03 d. Child care?.......04 e. Other? (SPECIFY) ______________..96 f. NO OTHERS.........00 DON'T KNOW........98 REFUSED...........99
D13	INTERVIEWER: IS THERE ANOTHER HELPER?	YES.....(GO TO D3, NEXT HELPER)....01 NO....(GO TO D14).....00	YES.....(GO TO D3, NEXT HELPER)....01 NO....(GO TO D14).....00	YES.....(GO TO D3, NEXT HELPER)....01 NO....(GO TO D14).....00	YES.....(GO TO D3, NEXT HELPER)....01 NO....(GO TO D14).....00	YES.....(GO TO D3, NEXT HELPER)....01 NO....(GO TO D14).....00	YES...(GO TO D3, NEXT HELPER)....01 NO....(GO TO D14).....00

D14 INTERVIEWER: ARE ALL HELPERS LESS THAN 15 YEARS OLD? ARE ALL QUESTIONS D5 LESS THAN 15?

YES........(GO TO E1).......01
NO..........................00

D15 (Does your helper/How many of your helpers) have children of (her/his/their) own?

YES.........................01
NUMBER...............¦___¦___¦
NONE.......(GO TO E1).......00
DON'T KNOW..................98
REFUSED.....................99

D16 When hiring helpers, was it important that they had experience caring for their own children?

YES.........................01
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

E. HEALTH AND SAFETY

E1 Now, I'd like to ask you some questions about health and safety.

Do you allow parents to leave children who...

	YES	NO	DON'T KNOW	REFUSED
a. have a feverish appearance?	01	00	98	99
b. have severe coughs?	01	00	98	99
c. have unusual spots or rashes?	01	00	98	99

E2 Are sick children separated from other children?

YES	01
NO	00
SOMETIMES OR DEPENDS	02
CARES FOR ONLY ONE CHILD	97
DON'T KNOW	98
REFUSED	99

E3 At a parent's or physician's request, do you administer...

	YES	NO	SOMETIMES	DON'T KNOW	REFUSED
a. over-the-counter medications such as aspirin or cough syrup?	01	00	02	98	99
b. prescription medications?	01	00	02	98	99

E4 In case of an emergency, do you have the phone number of (each/the) child's doctor?

YES, ALL....................01
SOME, NOT ALL...............02
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

E5 Do you have a medical release for (each/the) child in case of emergencies?

YES.........................01
SOME, NOT ALL...............02
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

E6 Do you have a plan to follow if (one of) the child(ren) in your care needs emergency medical care?

YES.........................01
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

E7 Do you have a list of persons to whom (each/the) child may be released?

YES.........................01
SOME, NOT ALL...............02
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

E8 What arrangements do you make for providing child care when **you** are sick?

TELL PARENTS THEY CANNOT BRING CHILD................01
MAKE ALTERNATIVE ARRANGEMENTS FOR CHILDREN..........02
CARE FOR CHILDREN ANYWAY............................03
NEVER GET SICK......................................04
OTHER (SPECIFY).....................................05

____

____

DON'T KNOW..98
REFUSED...99

E9 Have you had fire drills with the children you currently care for?

YES........................01
NO.........................00
DON'T KNOW.................98
REFUSED....................99

E10 The next questions are about licensing and registration.

For how many children are you licensed or registered to provide child care?

|___|___| CHILDREN

NUMBER OF CHILDREN
NOT LIMITED...............97
DON'T KNOW................98
REFUSED...................99

E11 Have you had difficulty meeting licensing or registration requirements?

YES.........................01
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

E12 How many times was your home inspected by state or local licensing or registration authorities (during the last two years/since you began caring for children)?

|___|___| - 19 |___|___|
MONTH YEAR
DON'T KNOW..................98
REFUSED.....................99

E13 Do you have liability insurance to protect yourself in case a child gets hurt?

YES.........................01
NO..........(GO TO E15)....00
DON'T KNOW...(GO TO E15)....98
REFUSED......(GO TO E15)....99

E14 Have you had any problems obtaining liability insurance?

YES.........................01
NO..........................00
DON'T KNOW..................98
REFUSED.....................99

*** * * GO TO F1 * * ***

E15 Have you tried to obtain liability insurance?

YES........................01
NO...........(GO TO F1)....00
DON'T KNOW....(GO TO F1)....98
REFUSED.......(GO TO F1)....99

E16 Why have you been unable to obtain liability insurance?

COST TOO MUCH...............01
INSURANCE COMPANIES
WON'T COVER ME............02
OTHER (SPECIFY).............03

____

DON'T KNOW..................98
REFUSED.....................99

F. CAREGIVER CHARACTERISTICS AND EXPERIENCE

F1 Finally, some questions about you.

What is the highest level of school you completed?

LESS THAN HIGH SCHOOL..............................01
HIGH SCHOOL DIPLOMA.............(GO TO F3).........02
GED.............................(GO TO F3).........03
LESS THAN 2 YEARS OF COLLEGE.....(GO TO F3).........04
TWO-YEAR ASSOCIATES DEGREE.......(GO TO F3).........05
TWO OR MORE YEARS OF COLLEGE BUT NO COLLEGE DEGREE.......................................06
VOCATIONAL OR TECHNICAL SCHOOL AFTER HIGH SCHOOL.............(GO TO F3).........07
COLLEGE DEGREE..................(GO TO F3).........08
POST-GRADUATE OR PROFESSIONAL DEGREE........................(GO TO F3).........09
DON'T KNOW......................(GO TO F3).........98
REFUSED.........................(GO TO F3).........99

F2 INTERVIEWER: ENTER HIGHEST GRADE COMPLETED OR ASK: What is the highest grade of regular school you completed?

GRADE.................|__|__|
DON'T KNOW..................98
REFUSED.....................99

F3 Have you had any special child care or early education training?

PROBE: Not counting any experience you may have in caring for your own children.

YES.........................01
NO...........(GO TO F5)....00
DON'T KNOW....(GO TO F5)....98
REFUSED.......(GO TO F5)....99

F4 What kind of training have you had? CIRCLE ALL THAT APPLY.

PROBE: Any other types of training?

CHILD DEVELOPMENT ASSOCIATE (CDA) TRAINING..........01
TEACHER TRAINING....................................02
NURSES TRAINING OR HEALTH COURSES...................03
TRAINING BY REFERRAL OR GOVERNMENT AGENCY...........04
CHILD CARE COURSES OR WORKSHOPS.....................05
CHILD DEVELOPMENT OR PSYCHOLOGY COURSES IN SCHOOL...06
OTHER TRAINING FOCUSED ON EDUCATION (SUCH AS ELEMENTARY EDUCATION).............................07
OTHER TRAINING FOCUSED ON SOCIAL SERVICES (SUCH AS SOCIAL WORK)............................08
OTHER (SPECIFY).....................................00

NO OTHER TYPES OF TRAINING..........................95
DON'T KNOW..98
REFUSED...99

F5 While caring for children in your home, you may have experienced conflicts between responsibilities to your family and responsibilities for the children you care for. Have you had any of the following experiences?

	YES	NO	NOT APPLICABLE	DON'T KNOW	REFUSED
a. Your own children resented your attention to the other children?........................	01	00	97	98	99
b. You had to clean house or run errands while caring for the other children?..........	01	00	97	98	99
c. Other members of your household resented disruption of household activities by your child care activities?.................	01	00	97	98	99
d. Were there any other conflicts between your family and child care demands? (SPECIFY)............. _______________________________ _______________________________	01	00	97	98	99
e. Have you had problems with parents who leave their children with you, even though they have symptoms of illness that are not permitted?......................	01	00	97	98	99

F6 Do you live in a house, apartment building, or condominium?

HOUSE	01
APARTMENT BUILDING OR CONDOMINIUM	02
DON'T KNOW	98
REFUSED	99

F7 Is your zip code (ZIP CODE)?

YES	(GO TO F9)	01
NO		00
DON'T KNOW	(GO TO F9)	98
REFUSED	(GO TO F9)	99

F8 What is your zip code?

|__|__|__|__|__|

DON'T KNOW	98
REFUSED	99

F9 How many miles from your home is the nearest bus, train, or subway stop?

ONE BLOCK OR LESS	01
2 TO 6 BLOCKS	02
7 BLOCKS TO 1 MILE	03
ONE TO FIVE MILES	04
MORE THAN FIVE MILES	05
NO PUBLIC TRANSPORTATION	06
DON'T KNOW	98
REFUSED	99

F10 Are you of Spanish or Hispanic origin or descent?

YES........................01
NO.........................00
DON'T KNOW.................98
REFUSED....................99

F11 What is your race?

WHITE......................01
BLACK......................02
ASIAN OR PACIFIC ISLANDER...03
AMERICAN INDIAN OR
ALASKAN NATIVE............04
OTHER (SPECIFY)............05

____

DON'T KNOW.................98
REFUSED....................99

F12 Are there children who live with you who are at home when you are caring for other children?

PROBE: Include your own children and other children who live with you.

YES........................01
NO...........(GO TO F16)...00
DON'T KNOW....(GO TO F16)...98
REFUSED.......(GO TO F16)...99

F13 How many children who live with you do you care for along with other children?

¦___¦___¦ CHILDREN
NONE........(GO TO F15).....00
DON'T KNOW..................98
REFUSED.....................99

F14 What are the ages of the children who are at home while you care for other peoples' children?

	YEARS	DON'T KNOW	REFUSED		YEARS	DON'T KNOW	REFUSED
a.	¦___¦___¦	98	99	e.	¦___¦___¦	98	99
b.	¦___¦___¦	98	99	f.	¦___¦___¦	98	99
c.	¦___¦___¦	98	99	g.	¦___¦___¦	98	99
d.	¦___¦___¦	98	99	h.	¦___¦___¦	98	99

F15 What is your marital status?

MARRIED/LIVING WITH PARTNER..................01
DIVORCED....................02
SEPARATED...................03
WIDOWED.....................04
NEVER MARRIED...............05
DON'T KNOW..................98
REFUSED.....................99

F16 How old are you?

¦___¦___¦ YEARS OLD
DON'T KNOW..................98
REFUSED.....................99

F17 Approximately what was the total income of your family last year before taxes? Please include your own income and that of all members of your immediate family who are living with you and any other sources of income you may have.

$ ¦___¦___¦___¦,¦___¦___¦___¦ PER YEAR --> (GO TO F19)

DON'T KNOW....(GO TO F18)...999998

REFUSED.......(GO TO F18)...999999

F18 Stop me when I reach your income category. Was it...

$0 to $6,000................01

$6,001 to $12,000...........02

$12,001 to $18,000..........03

$18,001 to $24,000..........04

$24,001 to $30,000..........05

Over $30,000................06

DON'T KNOW..................98

REFUSED.....................99

F19 Could you tell me approximately how much of your family income was received from child care activities last year?

IF RESPONDENT DOESN'T KNOW, PROBE: Your best estimate would be fine.

$ ¦___¦___¦,¦___¦___¦___¦

OR

¦___¦___¦___¦ PERCENT

NONE, DIDN'T PROVIDE
CARE LAST YEAR............97

DON'T KNOW..................98

REFUSED.....................99

F20 INTERVIEWER: IS CHILD CARE PROVIDER MALE OR FEMALE?

MALE........................01
FEMALE......................02

F21 That's all the questions I have. Thank you for your time. We appreciate your cooperation.